# **Coleoptra of Lundy** M. BRENDELL British Museum (Natural History), Dept. of Entemology

Situated as it is, alone in the Bristol Channel, Lundy has for well over a century and a half suffered much attention from navigators, meteorologists, archaeologists and natural historians. Although principally of ornithological fame, spasmodic and sometimes quite intensive interest has been shown in its coleopterous fauna since as early as 1844. Approximately 24 separate articles on the insects of Lundy have been published in various journals since then, nearly all of which deal exclusively with the island's beetles. The main reasons for the production of yet another paper in the form of the present list will become apparent upon reading through the historical survey laid out below. Since the first lists recording the island's Coleoptera successive authors have reproduced or established an increasing number of misinterpretations of many of the earlier specific names. This has been caused mainly by the difficulties of keeping up with the continual process of nomenclatorial change. Some species already listed have been recorded again by a different and often wrong name as new to Lundy because of a later authors failure to recognise the earlier name. A few have been added simply by inaccurate transcription of earlier lists. In total the number of species said to have occurred there has risen steadily to produce the last published figure of 527 species (Welch 1969).

The present list has been compiled from all available published and unpublished records, the nomenclatorial validity and origin of each name has been checked as far as possible and its history in relation to Lundy noted on the species chart that follows. The final amalgamation of records has, after deleting 34 names from the earlier lists, produced a total of 609 species, 16% of the British List. This total includes 5 species whose occurrence on Lundy is seriously questioned here.

### **Brief Historical Survey**

The accompanying table (fig. 1) lists in chronological order those that are known to have collected Coleoptera on Lundy. It shows the years and months in which each collector visited the island and if applicable, the years in which the various results reached publication. A full bibliography to these and other relevant works is placed at the end of the list and notes. Many of the collectors that have published records have also included a discussion on various aspects of the islands biota. By following these accounts it is possible to see a gradual successive build up of vegetational cover over parts of the island, a factor which must have contributed much to the continual increase in the number of species known from Lundy. Further important considerations on this subject include of course the large number of boats that have for many years now delivered livestock, supplies and day-trippers from the mainland. However, it is not the intended purpose of the present paper to enumerate the reasons behind the occurrence of quite so many species on this one small, principally granite island.

The first entomologist to record in print the results of a collecting trip to Lundy was T.V. Wollaston, well known in later years for his extensive works on the Coleoptera of the Atlantic islands. In 1844 he collected what was then considered to be 65 distinct species of beetle, the following year he added a further 88 species to his original figure. Frederick Smith, primarily a hymenopterist, made small collections of beetles on Lundy in 1869 and 1874. He published his records later in the year of each visit and added a small number of species to the list. Between Smith's visits, Chanter (1871) published his history of Lundy in which he included Wollaston's two lists verbatim. He did not include Smith's records or indeed add anything more to Wollaston's observations other than to refer to his "new species of Macrocnema" as a new and unrecorded species of "Psylloides" (Psylliodes), this being "on the authority of Mr. Waterhouse, of the British Museum". It was Waterhouse who had sent this chrysomelid to Kutschera who named it P. Luridipennis (1864), a species that is considered endemic (see note 61). E. Parfitt (1872) offers a short paper in which he discusses Wollaston's observations, he does not add any further names but does make references to Smith's first visit to Lundy. A short and often overlooked note by the Reverend Walker (1890) records three species taken by himself in 1888. One, "Telephorus melanurus" (Rhagonycha fulva Scop.) had not previously been found on the island.

A factor that has caused much of the already mentioned misinterpretation of names was the failure of the early writers to include the species authors when publishing their lists of records. It is, however, quite apparent from the names he used that Wollaston's main works of reference were Stephens' 'Illustrations' (1828-32) and 'Manual' (1839). The very few names that do not appear in Stephens were probably communicated to Wollaston by his contemporaries. Reference to Stephens therefore supplies the authors of the names he used, these can then be brought up to date but only after checking the identity of each species according to Stephens. This can be done for the most part by using Waterhouse's catalogue (1858). In such a way it has been possible to identify the names used by Wollaston in his lists and to show the results of this check on the species list chart that follows. Little trouble was experienced in deciding the true identity of Smith's records.

Interest in the Coleoptera of Lundy seems to have waned until Norman Joy published a series of papers between 1905 and 1909 relating to his two expeditions there. His first article is restricted to placing *Melanophthalma distinguenda* Comolli from Lundy on the British List. In 1906 he published a full list composed of his own records of species new to Lundy and those of Smith and Wollaston. He acknowledges Canon Fowler for help in identifying his own material and Mr Tomlin for interpreting "Wollaston's old names". He marks his own records of species new to Lundy each with an asterisk. The following year, 1907, having visited Lundy again, this time accompanied by J.R. le B. Tomlin, Joy records a further 201 species as new to the island. A short communication in 1908 gives corrections and additions relating to his second collecting trip. July 1906 and January 1907 saw the publication of two separate papers co-authored by Joy and Tomlin adding *Cardiophonus erichsoni* Buyss and *Laccobius sinuatus* Mots. to the British as well as to the Lundy list. In January 1909 Joy received a bag of wet following May. Through the kindness of the British Entomological and Natural History Society, who at present house the Joy collection of British Coleoptera, I have been able to examine what remains of Joy's Lundy material. It has therefore been possible to verify the identity of many of the species found to date only by Joy. A number of his original determinations have had to be changed, these are noted on the chart.

In 1913 Mitford and Donisthorpe spent nine days on Lundy collecting Coleoptera. They published the results of their work in the same year adding a further 39 species to the list. Unfortunately this somewhat important paper was overlooked by most later authors, notably Blair and Campbell-Taylor who both attempted to produce 'complete' lists of the Coleoptera known from Lundy.

Loyd (1925) produced a book on the history and natural history of Lundy. Concerning beetles, he does no more than refer the reader to some of the earlier works. A small report by Rowden (1928) also gives little more than a list of earlier collectors. These two authors do, however, mention Mitford and Donisthorpe's list but both give an incorrect reference.

Bristowe made a minor collection of insects in 1928 the names of which appear in an article published in 1931, 10 Coleoptera are listed. The same year, 1931, also saw the publication of Blair's well known treatise 'The Beetles of the Scilly Islands' in which he includes a comparative list of the Coleoptera of Lundy drawn from the works of Joy and Tomlin, Smith and Wollaston. Blair himself did not collect on Lundy but in his list he has attempted to bring the nomenclature up to date. He also shows by the use of initials marked against the species which of the earlier collectors recorded them. In 1943 Professor Hale Carpenter published a list of insects including Coleoptera that he had found on Lundy. He also records the results of a collection made by Elton in 1927 the specimens from which are said to be in the Hope Department at Oxford.

A special volume, 'The Fauna and Flora of the Ilfracombe District', Palmer (1946), a publication promoted by the Ilfracombe Field Club, contains a long list compiled by Campbell-Taylor of the beetles of this area. Lundy is included and accordingly many of the species are marked with an 'L' indicating their occurrence there. This list was taken directly from Blair (1931), the nomenclature remaining almost completely unaltered. There is no indication that Campbell-Taylor ever collected on Lundy. Acknowledgements for the source of the records go principally to Blair and again to Wollaston, Smith, Joy and Tomlin. A list of the Coleoptera found on Lundy but not on the North Devon mainland is included in the same publication. No doubt this could now be much shortened. Both Blair and Campbell-Taylor include a short habitat description with each species. K.G.V. Smith, during a stay of only a few hours on Lundy, made a collection mainly of Diptera and some beetles, amongst which was a *Stenus* new to the island. More recently the Lundy Field Society in the 20th Annual Report (1969) published a list resulting from a major collection of beetles made on the island by Dr. Colin Welch in 1961, 63 and 67. Many more species were added to the list as a result of this work which is the only paper to appear in the Society's reports that carries details of the islands Coleoptera except for two species mentioned in the 2nd Annual Report (1948). Dr. Welch has kindly made available some of his material and a list of further species collected by himself but not included in his paper.

The present list also includes the hitherto unpublished results of three other collections from Lundy. These were made by C.M.F. von Hayek (British Museum Natural History), C. MacKechnie-Jarvis and myself. My own stay of eight days on Lundy in 1972 was made possible partly through the facilities of a grant extended by the Lundy Field Society.

Shortly before going to press Mr H. Last supplied me with the names of some Staphylinidae collected by himself on Lundy on 16th August 1950. One species, *Gabrius pennatus* Sharp, has not otherwise been recorded from there.

## EXPLANATION OF THE SPECIES LIST CHART

The following chart represents a complete list of the species of Coleoptera recorded to date from Lundy. It shows, amongst other details, the number of times each species has been found on the island and so helps distinguish those which appear to have become established from those that are perhaps less successful or are simply incidental visitors. The names that actually constitute the list of species are those against the left hand margin of the chart. The nomenclature agrees with the revised Check List of British Insects (Kloet and Hincks, in print). Inset from the left hand margin are the other names by which species listed have appeared in past publications on the Coleoptera of Lundy. Some of these names are straight forward synonyms and some stem from earlier misidentifications and are now placed under the correct name whilst others have resulted from previously published mininterpretations of earlier names as explained in the introduction. All these names are marked on the chart under the writers that used them in the process of recording the beetle fauna of Lundy. It is again pointed out here that Wollaston and Smith did not include the species authors with the names on their lists, however, it is considered unnecessary to make separate entries for these on the present chart if the same name including author is entered for a later record. It must also be remembered when referring to the chart that Blair and Campbell-Taylor were not collectors, species marked

below their names represent repeated records and not fresh ones. Except for those specimens from the Joy collection seen during the course of this work there is no way of assessing which of the species recorded by Wollaston were also found by Joy since the latter combined both lists distinguishing only the species which he himself added to the total.

The collectors and recorders concerned are listed by their initials across the top of each page of the chart in chronological order of their respective publications. They are as follows:-

TVW	T.V. Wollaston	GDHC	G.D. Hale Carpenter including
FS	F. Smith		C. Elton
FAW	F.A. Walker	JEC-T	J.E. Campbell-Taylor
NHJ	N.H. Joy	CMFvH	C.M.F. von Hayek
M&D	R.S. Mitford and	KGVS	K.G.V. Smith
	H.St. J. Donisthorpe	СМК-Ј	C. MacKechnie-Jarvis
WSB	W.S. Bristowe	RCW	R.C. Welch
KGB	K.G. Blair	MJDB	M.J.D. Brendell

Each record is marked on the chart by one of the following letters:-

P = published record of a species regarded in print by the collector as new to Lundy.

**P** = published record of a species that was already known from Lundy.

M = First published record of a species hitherto unknown from Lundy.

M = Manuscript record of a species already known from Lundy.

A record followed by an asterisk indicates that the original material has been examined during the preparation of the present list and the identification checked. Notes relevant to certain entries on the chart can be found by referring to the numbered passages at the end by the corresponding number entered in the right hand margin of the chart. Species authors are only given in full for the main entries on the chart, the remainder are abbreviated as published in the original lists. Names that are here deleted from the Lundy list are enclosed in square brackets. Species recorded from Lundy but whose occurrence is treated with some doubt are marked thus:- '?'.

Collector		January	February March	Apri 1	May	June	July	August	Se terber	Vetober	Taningaou	Teomapan	Year of field works	Year gublica	of tion.
T.V.Wollaston					10								1844	1845	
frequestion and a state of													1945	1947	
F.Smith													1869	1869	
													1874	1874	STER ST
F.A.Walker						(							1886	1890	
N.H.Joy													1 905	1905	1906
•				۲									1 906	1906	1907, 1908
													1909	1909	and a count
R.S.Mitford and	1.2														
H.Donisthorpe													1913	1913	
C.Elton							(						1927	1943	(in Hale Carpenter)
W.S.Bristowe						(							1928	1931	196.0102
G.D.Hale Carpenter													1942	1943	
H.Lust							0						1950		
C.M.F. vonHayek													1953		
													1954		
K.G.V.Smith								6					1957	1958	
R.C.Welch						(							1961	1969	
				(									1963	1969	
C.Mac Kechnie-Jarvis						6							1966		
R.C.Welch				(									1967	1969	
M.J.D.Brendell						(							1972	-	
							-								

## ACKNOWLEDGEMENTS

My sincere thanks go to the many people who have supplied me with information, records, specimens and advice during the course of this work. It is regrettable that the limitations of space forbid a more personal acknowledgement.

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		TVW	FS	FAW	<b>CHN</b>	M&D	WSB	KGB	GDHC	JEC-T	CMFvF	KGVS	CMK-J	RCW	MJDB	
CICINDELIDAE Cicindela campestris Linnaeus		Р	-	-	Р	_	-	Р	-	Р	-	-	-	Р	M*	
CARABIDAE																
Calosoma sycophanta (Linnaeus)		Ρ	-	-	-	-	-	-	-	-	14	-	-	-	1401	1
Carabus monilis Fabricius		-	-	-	-	-	-	-		Ρ	-	-	-	~	-	2
C. granulatus Linnaeus		P	-		P	-	-	P	-	P	M*	-	М	-	M*	
C. nemoralis Müller		Р	-		P P*	-	-	P	Ρ	P	M*	-	-	Ρ		
Leistus fulvibarbis Dejean		0	_	-	-	_		F	-	-	-	-	-	64	-	
Nebria brevicollis (Fabricius)		-	P		P	-		P	P	P	M*		-	-	-	
N. salina Fairmaire		-	-		-	-		-	-	-	M*	-	-		-	
Notiophilus agaticus (Linñaeus)		Ρ		134	P*	-		-	-	+	1	-	-	**	-	3
N. germinyi Fauvel		-	-	-	-	-	-	-	-		-	-	17.0	-	-	
N. palustris Duft.		-		-	P*	-		P	-	P	-	-	-	-	100	4
N palustris (Duftschmid)		-		-	-	_		-		-	M*	_	_		2	
N. substriatus Waterhouse			-	-	P	-	+	Ρ	-	Ρ			-	-	-	
N. biguttatus (Fabricius)		-	-	-	Ρ	-		Ρ		Ρ	-		-		M*	5
N. striatus		Ρ	-	10	-		-	-	-	-	-			-	-	
Loricera pilicornis (Fabricius)		-		~	Ρ	-		P	D	Ρ	-	-	~	-	M*	
Clivina tossor (Linnaeus)		-	-		P			P	P	P		-		P		
Bembidion Jampros (Herbst)					P*	P		P	P	P	M*				IVI	6
B. properans Stephens					-								M			0
B. harpaloides Serville											-				M*	
B. unicolor Chaudoir		1				$\sim$		-			M*					
B. mannerheimi Sahl.			-		P*			P		P						
T minutus F		P			P*			r		r						
T. substriatus Schr. (= minutus F.)		-			-				P						1	
T. obtusus Erichson				-										Ρ	-	
[T. fulvus Dejean]			-			-										7
Panagaeus bipustulatus (Fabricius)		-			1					Ρ						8
Badister bipustulatus (Fabricius)		P			P			P	D	D						8
Harpalus aeneus (Fabricius)		P			P			P		P			IVI			
H. limbatus		P	-			-		-		-						
H. latus v. erythrocephalus (Fabric	us)	-			Ρ			Ρ		Ρ		-	-		-	
H. rubripes (Duftschmid)		* *			Ρ	×.		P		Ρ					-	
[H. honestus (Duftschmid)]			-			-		D							1.00	9
H. rufitarsis (Duftschmid)		P	-		M+	1.10		Р		Р					~	9
H bonestus Duft		5	-		P											
H. attenuatus Stephens		-	-		P*	-		P		P		-	-	P		
H. neglectus Serville		-	-	-	Ρ	$\sim$	•	Ρ	100	Ρ			8		-	10
H. tardus (Panzer)		100	-	$\sim$	P*		Ξ.	Ρ	-	Ρ	-	-	-	**	-	
H. anxius (Duftschmid)		-	-	-	P*		-	Ρ	-	Ρ			~			
[H. puncticollis (Paykull)]		D	-	-	**	-				-		-	1	-	~	11
H rufibarbis (Fabricius)			-	-	P	_			-		_			-		12
Ophonus rufibarbis F.		-	-	_	-		-	P	-	Р	-	-	-	-		12
Harpalus brevicollis Dej.			-	_	M*	-	-		-	-	-	-	-	-	-	
H. schaubergerianus Puel		-	•	-	-	-	-		-	-	-	-	-	P*	-	
[H. schaubergerianus Puel]		-	-	-	-	-	-	-	-		-	-	-	-	-	12
H. rupicola Sturm		_		_	_	Р	-		-	-		-	-	P	-	
H ruficornis E.		-	-	_	P	2	-	-	-		-	-	-	-	_	
Ophonus pubescens Mull.		-		-	-	-	-	P	-	P	-	-	-		-	
Pseudophonus pubescens Müll.		-		-	-	-	-	-	Ρ		-	-	-	-	-	
Acupalpus dubius Schilsky		-	-	-	-	-	-	-	-	-	M*	-	-	-	-	
A. exiguus v. luridus Dej.			-	-	Ρ	-	-	-		-	-	-	-	-	-	
A. luridus Dej. Braduaallus ruficallis (Stanbans)		-	-	-	_	-	-	Р	-	Р	-	-	-	-	-	
Bradycenus runcoms (Stephens)		_	-	_	P	_	_	P	_	P	_	_		_	_	
B. distinctus (Deiean)		_	_	_		-	-	-	-	-	-	_	_	-	-	13
B. sharpi Joy		-	-	-	-	-	-	-	-	-	-	-	-	-	M*	
B. distinctus Dej.		-	-		Ρ	-	-	Ρ		Ρ	-	-	-	-	-	13
B. verbasci (Duftschmid)		-	-		Р			P		P	-	-	-	-	M*	-
Trechus fulvus Dej.		Р		-	-		-	Р	-	Р	-	-	-	-	-	7
I. lapidosus Daws. P. harpalinus (Serville)		-	_	_	P D*	-	_	P	-	P	_	_	_	-	- M#	10
Anisodactylus binotatus (Fabricius)		-	P	-	P	_	_	P	_	P	_	-		_	141	10
Amara plebeja (Gyllenhal)		-	-	-	-	-	-	-	-	-	-	-	-	-	-	
A. plebeia Gyll.		Ρ	-	-	P	***	-	Ρ	-	-	-	-	-	-	-	
A. plebia Gyll.		-	-	-	-	-	-	-	-	Ρ	-	-	-	-	-	
A. ovata (Fabricius)		-	-	-	P*	-	-	Ρ	-	Ρ	-	-	-	Ρ	-	
A. convexior Stephens		Р	-		-	-	-	Ρ	-	Ρ	-	-	-	-	-	
A. continua 11. A. lunicollis Schiedte		(1) m	_		P	-	-	P	-	P	-	-	-	-	-	
A. aenea (Degeer)		-	-	2	-	-	-	P	P	P	M*	-	М	Ρ	-	

	TVW	FS	FAW	ГНN	M&D	WSB	KGB	GDHC	JEC-T	CMFv	KGVS	CMK-	RCW	MJDB	
A. trivialis Gyll.	Р	-	-	Ρ	-	-	-	-	-	-	-	-	-	-	
A. familiaris (Duftschmid)	-	-	-	P	-	-	-	-	-	-	-	-	-	-	
A. tibialis (Paykull)	-	-	-	P*	-	-	-	Р	-	-	-	-	Р	M*	
A. aulica (Panzer)	-	-	-	D*	_	-	P	_	P	-	_	_	M	IVI *	
Pterostichus versicolor Sturm	-	_	_	P	-	P	_	_	-	M*	_	-	-	-	
Poecilus versicolor	Р	-	-	-	-	-	-	-	-	-	-	-	-	-	
Pterostichus coerulescens L.	-	-	-	-	-	-	Ρ	-	P	-		-	-	-	
P. niger (Schaller)	-	-	-	-	-	-	-	-	-	-	-	-	-	M*	
P. melanarius (Illiger)	-	-	-	-	-	-			-	M*	-	-	-	M*	
Omaseus attinis	P	-	_	P	-	_	P	P	P	_	_	_	-	_	
Freostichus vulgaris L.	-	-	_	-	2	- 21	5	-	_	_	Ξ.		P	-	
Perona melanana (m.)		P		P			P		P			M			
Feronia nigrita (F)	-	-	_	_	_	-	-	_	-	2	-	-	P		
P. minor (Gyllenhal)	-	-	-	P*	-	-	P		Ρ	M*	-	-	-	-	
P. strenuus (Panzer)	-	-	-	Ρ	-	-	Ρ	-	Ρ	M*	-	-	-	M*	
Argutor erythropus	P	-	-	-	-	-		-	-	-		-	-	-	
Feronia strenua (Pz.)	-	-	-	-	-	-	-	-	-	-	-	-	Ρ	-	
P. diligens Sturm	-	-	-	P	-	-	P	-	P	-	-	-	-	-	
P. madidus (Fabricius)	-	-	-	٢	-	-	P	_	P	-	-	-	-	-	
Abay parallelepipedus (Piller & Mitterpacher)	-	_	-	2	-			_	-	M*	_	-	P	M*	
Pterostichus striola E.	-	-	-	P	-	-	-	-	-	-	-	-	-	-	
Abax striola F.	-	-	-	-	Ρ	-	-	-	-	-	-	-	-	-	
A. ater Vill.	-	-	-	-	-	-	Ρ	-	Ρ	-	-	-	-	-	
Calathus fuscipes (Goeze)	-	-	-	-	-	-	P	Ρ	P	M*	-	-	Ρ	M*	
C. cisteloides Pz.	-	Р	Р	P	-	-	-	-	-	-	-	-		-	
C. melanocephalus (Linnaeus)	P	-		P+	-	P	P	-	Р	IVI +	-	N/I	-	IVI *	
C. mollis (Marsham)	_			_	_	-	_	_	_	_	-	-	_	M*	
Pristonychus terricola (Herbst)	_		-	P	_		-	-	_	-	_	_		-	
Laemostenus terricola Hbst.	-	-	-	-	-	-	P	-	P	-	-	-	-	-	
Synuchus nivalis (Panzer)	-		-	-	-	-	-	-	-		-	-	-	M*	
Olisthopus rotundatus (Paykull)	Р	-		Ρ	-	-	P	-	Ρ	M*	-	-	Ρ	-	
Agonum marginatum Linnaeus		-		-	-	-	-	-	-	-	-	-	Ρ		
A. muelleri (Herbst)	-	-	-	-	-	-	-	Ρ	-	-	-	-	-	M*	14
A. viduum (Panzer)	-	-	-	-	-	-	-	-		-	-	_	-	-	14
A moestum Duitschinid	-	P	_	-	-	_	-	_	_	_	_	- 2	_	-	14
A viduus Pz	-	_	-	P	-	-	-	-	-	-	-	-	-		
Agonum viduum Pz.	-	-	-	_	-	-	Ρ	-	P	-	-		-	-	
A. viduum v. moestum Dufts.	-	-	-	-	-	-	Ρ	-	Ρ	-	-	-	-		
A. albipes (Fabricius)	-	-	-	-	-	-	-	-	-	M*	-	-	-	M*	
Anchomenus pallipes	-	Р	-	-	-		-	-	-	-	-	-	-	~	
A. albipes F.	-		-	Р	-		P	-	P	-	-	-	_	-	
A dersale (Pentoppidan)		- 2			-		_	_	-	-		1	M	-	
Anchomenus dorsalis Pont.	-	-	-	-	-	-	-	P		-		1	-	-	
A. fuliginosum (Panzer)	-	-	-	-	-		Ρ	-	Ρ	M*	-	-	1.541	M*	
Anchomenus fuliginosus Pz.	-	-	-	Ρ	-	-	-		-	-	-	100	-	-	
Demetrias atricapillus (Linnaeus)	Ξ	P	-	P	-		P		P		-	-	M	M*	15
Dromius linearis (Olivier)	P	Р	-	P	-		P	-	P	M*	P	M	M	-	
D. melanocephalus Dejean	-	-	-	Ρ	-	_	P	_	P	IVI -	-	-	P	-	
D. notatus Stephens		_		P*			P	-	P	-	-	-	-	-	
Metabletus foveatus (Fourcrov)	-	-	-	-	-	-	P	-	P	M*	-	M	Р	-	
Dromius foveolus	P		-	-	-	-	-	-		-	-	-	-	-	
Metabletus foveola Gyll.	-	-	-	Ρ	-	-	-			-		-	-	-	
HALIPLIDAE				D			D		0						
Haliplus lineatocollis (Marsham)	P	-	-	P	-	_	P		F	IVI -	-	_	-	-	
DYTISCIDAE													1.0		
Laccophilus minutus (Linnaeus)	-	-	-	-	-	-	P	-	P	-	-	-	-	-	
L. obscurus Pz.	-	-	-	Ρ	-	-	-	-	-	-	-	-	-	-	
Hygrotus inaequalis (Fabricius)	-	-	-		-		-	-	-	M	× _	-	-	M*	
Hydroporus discretus Fairmaire	-	-	-	P*	-	-	P	-	P	-	-	-			
H. erythrocephalus (Linnaeus)	Р	-	-	P	-	-	Р	-	Ρ	M*	-	-	-	M*	
H. gyllenhali Schiodte	-	-	-	P	-	-	- D	-	P	1/4 *	-		-	101 -	16
H piceus Steph	P	-	-	F	-	_	P	_	P	_	1	1		-	15
H longulus Mulsant		-	-	P	-	-	-		-	M*	-	-	-	M*	
H, celatus Clk.	-	-	-	-	-	-	Р	-	P	-	-	- 1	-	-	
H. memnonius Nicolai		_	-	Ρ	-	-	Ρ	-	Ρ	-	-	М			
H. jugularis Bab.	Р	-	—	-	-	-	-	-	-	-	-	-	-	-	
H. nigrita (Fabricius)	-	-	-	-	-		-	-	-	-	-	-	-	M*	
H. palustris (Linnaeus)	-	-	-	Р	-	-	Р	-	Р	-	-	-	-	-	17
[H. planus (Fabricius)]	-			NA.	* p	-	_	-	_	M	-	M	-	M*	17
H planus F.	P			P	-	-	P	-	P	_	-	-	-	-	

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	TVW	FS	FAW	CHN	M&D	WSB	KGB	срно	JEC-T	CFMV	KGVS	CMK-	RCW	MJDB	
[H. rufifrons (Müller)(= Duftschmid, 1805)] H. tessellatus Drapiez	-	-	-	-	-	-	-	-	-	-	-	-	17		16
H. lituratus F.	-	-	-	-	Ρ	-	-	-	_	-	-	-			
Agabus bipustulatus (Linnaeus)	-	Ρ	-	P	-	-	Ρ	-	Ρ	M*	-	٨		·M*	
A. chalconatus (Panzer)	-	-	-	-	+	-	-	-	-	-					18
Agabus chalconotus Pz (sic)	P	-	-	P		-	P	-	P	- 20	100	n îgel			
A. guttatus (Paykull)	-	-		-	-		-	_	_	-	-	44		vi*	
A. melanocornis Zimmermann	-	-	-	-	-	-	-	-	-	M*	-	-		M*	18
A. nebulosus (Forster)	-	-	-	Ρ	-	1	Ρ	-	Ρ	-	-	-	-	-	
Livbius quadriguttatus (Larcordaire & Boisduval)	Р	-	-	-	-	-	-	-	-	- (	-	-		1.17	
Colymbetes fuscus (Linnaeus)	-	_	-	P	10	-	P	-	P	-	21	20		1.1	
Acilius sulcatus (Linnaeus)	-	-	-	Ρ	-	-	Ρ	-	Ρ	-		-			
GYRINIDAE															
[Gyrinus natator (Linnaeus)]	-	$\overline{a}$	-	-	-	-	-	-	-	-		-			19
G. substriatus Stephens	-	-	-	-	-		-	-	-		-	М		M*	19
G. natator Scop.	-	-	-	P*	_	-	P		P	-	•	-			
	_				-		1	-			1	1			
HYDRAENIDAE					-										
Uchthebius subintegar ssp. lejolisi Mulsant & Rey	-		100	D	Р		-		0						
L ater	P	0	-	r	-	2	· *		P	IVI -				IVI *	
HYDROPHILIDAE															20
[Helophorus aquaticus (Linnaeus)]	-	-	-			-									20
H. Drevipalpis Bedel Helephorus griseus	P			P										M.	20
. Atractelophorus brevipalpis Bed.	-						Ρ		P						
Helophorus affinis Marsh.							P		Ρ						
H. flavipes (Fabricius)	-													M*	20
Helephorus granularis	Р			P	P		P		P						
H. grandis Illiger	_				-		r		F						20
Helephorus grandis	P		-												20
Helophorus aquaticus L.	~			P			-		122						
Megalelophorus aquaticus L.	1				-		Ρ		Ρ						20
[H. obscurus Mulsant = aeneicennis Thomson]	-														20
Sphaeridium bipustulatum Fabricius	-		÷	Ρ		-	Ρ		Ρ						
S. bipulstulatum v. semistriatum Cast.				Ρ			Ρ		Ρ						
S. lunatum Fabricius		-			-		D		n					M*	
Cercyon analis (Paykull)		-		P			P	1	P				P		
C. flavipes F.	- 1	6 in 1	-	P*									3		21
C. haemorrhoidalis F.	-	-5	-		e 2		Ρ		Ρ						
C. atomarius (Fabricius) ,	P		-										Ρ		
C. haemorrhoidalis F.	-	_	2.	P	-		4			1					22
C. impressus Sturm	-	-	-	-		-	Ρ		P	-				-	
C. convexiusculus Stephens		-		~			-		Ρ	5					23
C. depressus Stephens	-	-	-	P*	-		P		P					M*	:
C. haemorrhoidalis (Fabricius)	1	_	-	-			F		E.	2			P	M*	21
C. littorale (Gyllenhal)	-		-	Ρ	-		Ρ		Ρ	-		м			
C. ruficorne	P	-	-	-	-	~	-	-	-	-	-	-	-		
C. melanocephalus (Linnaeus)	-	-	-	P*	-	**	P	-	P	M*		*	P	M*	
C. fuscescens	P	-	-	-		-	r	-	F				Р	IVI +	
C. quisquilius (Linnaeus)	-	-	-		-	-	-	-	-	-				M*	
C. terminatus (Marsham)	(-)	-	-	P*	-	(-)	Ρ	-	Ρ	-		-	P		
C. tristis (Illiger)	-	-	-	-	-	-	-	-		-				-	24
C. ustulatus (Prevssler)	_	-	_	-	-	-	P	_	P	-		_		-	
C. haemorrhous Gyll.	-	-	_	P	-	-	-	-	-	-	-	-			
Megasternum obscurum (Marsham)	-	~	-	-	-	-	-		-	M*	P	М	Ρ	M*	
C. stercorarium	P	-	-	-	-	~	-			177	-	-	-		·
Megasternum boletophagum Marsh.	-	-		P	-		P		P	-	~	-	-	-	24
Cercyon tristis III.	-	-	-	-	-		P	-	_	-	-	-	-	-	
Cryptopleurum minutum (Fabricius)	-		-	-	-	-	P	-	Ρ	-	-	2.	М	M*	
C. atomarium Ol.		-	-	Р		-	-	-	-	-		-	-		
Hydrobius fuscines (Linnaeus)	-	Ξ	-	- P*	-	-	P	-	P	-	-	-	-	M*	
Anacaena globulus (Paykull)	-	_	-	P*	_	-	P	_	P	-	-	-	_	M*	
A. limbata (Fabricius)	-	-	-	P	-	-	P	-'	P	-	-	-	-	M*	
Laccobius atratus (Rottenburg)	-	-	-	-		-	-		-	-	-	-	2	M*	
L. sinuatus Motschulsky	-	1	-	P	2 ·	1	P	_	P	_	-	-	1	-	
										10275				100	

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		TVW	FS	FAW	CHN	M&D	WSB	KGB	GDHC	JEC-T	CMFvI	KGVS	CMK-	RCW	MJDB	
L. striatulus (Fabricius)		-	-	-		-	-	-	-	-	-	-	-	-		25
L. nigriceps Thoms.		-	-	-	-	-	-	Ρ	-	-	-	-	-	-		
Helochares obscurus (Muller)		-	-	-	-	-	-	-	-	-	M*	-	-	-	M*	26
H. punctatus Snp. H. griseus Fab		_	_	-	P.	-	_	P	-	P	-	-	121	-	~	
Enochrus quadripunctatus (Herbst)		_	_	_	_	1	_	-	-	-	M*	-	-	- 2	M*	
Philydrus melanocephalus 0I.		-	-	-	P	-	-	-	-	-	-	-	-	-	-	
P. fuscipennis Th.		-	-	-	-	-	-	Ρ	-	Ρ	-	-	-	-	-	
Chaetarthria seminulum (Herbst)				-	-	-	-	Ρ	-	Ρ	M*	-		-	M*	
C. seminulum Pk.			-	-	P*	-	-	-	-	-	-	-	-	-	-	
Laccobius globosus		P	-	_	-	-	-	- -	-	-	-	-	-	-	-	21
HISTERIDAE																
Saprinus semistriatus (Scriba)		-			-	-	-	-	-	-	-	-	-	-		
S. nitidulus Pk.		-	-		-	Ρ		-	-	-		-	-	-	-	
Gnathoncus nanus (Scriba)		-1	-	-	-	-	-	-		-	-	-	-	-	-	
G. punctulatus Th.		-	-	-	-	Ρ	-		~	-	-	-		-	-	
Margarinotus cadaverinus (Hoffmann)		-	-	-	-	-	-	-	-	-	-	-	-	Р	M*	
Hister cadaverinus Hoff.			-	-	P	_	-	P	_	P	_	_	_	-	-	
M. purpurascens (Herbst)		-	-		-	-	-	-	-	-	-	-	-	Р	-	
Peranus bimaculatus (Linnaeus)		-	-	-	-	-	-	-	-		-	-	-	-	-	
Hister bimaculatus L.		-	-	-	Ρ	-	-	. P	-	Ρ	-	-	-	-	-	
PTILIIDAE																
Ptenidium fuscicorne Erichson					P*	-	-	P	· -	P	-	-	м	-	-	
P. nitidum (Heer)		-	-	-	P+	-	-	Р	-	٢	-	-	-	-	-	
Ptenidium nitidulum Heer			-	-		1	2	-		_	_	-	-	P	_	
P. pusillum (Gyllenhal)		-	-	-	-	-	, -	P	-	P	M*	-	-	P	-	
P. evanescens Marsh.		-	-	-	Ρ	-		-	-	-	-	-		-	-	
Acrotrichis fascicularis (Herbst)				$\sim$		-		-	-	-	-	-	-	Ρ	-	
Trichopteryx fascicularis Hbst.				-	Ρ	-	-	Ρ	-	Ρ	-	-	-	-	-	
A grandicollis (Mannerheim)				-	-	-		-	-	-		-	-	Р	-	
Trichopteryx grandicollis Mann			-		P		-						_	-	-	
T. grandicollis Marsh.					-	-		Ρ	-	Ρ	-	-		-	-	
A. intermedia (Gillmeister)			~		-						-	-	м	-	-	
LEIODIDAE																
Leiodes calcarata (Erichson)										-	-	-	-	-	M*	
Anisotoma calcarata Er						Ρ						-	-	-	-	
L intura Stephens		D		1		-	-		-	-	-	-	-	Ρ	-	20
Agathidium laevigatum Erichson					Р	-		P	-	P	_	_	M	_	2	20
Ptomaphagus medius Rey				-				-		-	-			-		
Catops sericatus Chaud.					Ρ		-		-			-	-	-	-	
Ptomaphagus subvillosus v sericatus Ch	haud				~	-	-	Ρ	-	Ρ	-			-	-	
P. subvillosus (Goeze) Choles Lagdes (Illiger)					0*		1	-	Ρ	-	M*		-	-	-	
Sciodrepoides tumata (Spence)					P	-		P		P	-	-	-	-	84*	
S watsoni (Spence)					-	-		-	-		M*	1	2	-	M*	
Choleva watsoni Spence					P*	P			-	-	-		-	1	-	
Sciodrepa watsoni Spence					-	(-)		Ρ		Ρ	-	-	-	Ρ	-	
Catops chrysomeloides (Panzer)								-	140	-		-	-	Ρ	M*	
C fulginosus Ecohoop						P		×.	-			-		-	-	
C. fuscus (Panzer)				-				P	-	P	IVI -	-	17.0	Р	IVI *	
Choleva fusca Pz.					P*			-	-	-	-	-	2	-	-	
C. mono (Fabricius)										-		-	-	P	-	
C. nigritus Erichson			-	-	-	$(\mathbf{w})$	$\simeq$	Ρ		Ρ	-	-	-	-	-	
Choleva nigrita Er.		-			Ρ	-	-	-			-			-7-	-	
SILPHIDAE																
Nicrophorus humator (Gleditsch)					-	-		-		- 10	-	-	-	Π.	M*	
Necrophorus humator		٩	-	-	-	~	-	-	-	-	- N		5	-	-	
N. numator Goez.					Ρ	Ŧ.	-	٢		Ρ		-	-	Ρ	-	20
Necrophorus vestigator Hers		P	-	_	P	2	_	p	_	P	-	-		-	IVI -	29
N. vestigator Herschel		-	-	-	-	-	-	-		-	-	-	-	-	-	29
Thanatophilus rugosus (Linnaeus)			***	$\sim - 1$		-	-	Ρ		Ρ	M*	-	-	Ρ	M*	
Silpha rugosa L.		-	-	-	Ρ	-	Ρ	-	-	-	-	-	-	-	-	
Aclypea opaca (Linnaeus) Silpha opaca I		-	-	-	- P	-	-	Ρ	-	Ρ	$\overline{O}$	-	-	-	-	
Ciloba atrata Linnaque			-	-	P	-	-				M*	_	-	-	7.00	
Phosobuga atrata I		-	-	_	-	_	-	P	-	P	-	-	-	-	-	
S. tristis Illiger		Ρ	()	-	P*	-	٩	Ρ	-	Ρ		-		-	M*	
SCYDMAENIDAE																
Neuraphes angulatus (Müller, P.W.J. & Kunz	e)	-	-	-	P*	-	-	Ρ	-	Ρ	-	-		-	-	

1993 AN 7768 ST	TVW	FS	FAW	<b>CHN</b>	M&D	WSB	KGB	GDHC	JEC-T	CMFvF	KGVS	CMK-	RCW	MJDB	
Scydmoraphes sparshalli (Denny)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Neuraphes sparshalli Den.	-	-	-	-	Ρ	-	-	~	-	-	-	-	-	-	
Stenichnus collaris (Müller, P.W.J. & Kunze)	-	-	-	P	P	-	Р		Ρ	-	-	-	Р	-	
S pusillus (Müller, P.W.J. & Kunze)	-	_	-	-	-	_	_	-	-	2		-	-	-	30
S. scutellaris (Müller, P.W.J. & Kunze)	-	-	-	-	-	-	Ρ	-	Ρ	-	-	-	-	-	
Scydmaenus scutellaris Mull.	-		-	P*	-	-	-	-	-	-	-	-	-	-	
S. pusillus Mull.	-	-	-	-	Р	-	-	-	-	-	-			-	30
[Scyullaenus sp. /]			-	_	_								_	_	51
STAPHYLINIDAE															
Metopsia retusa (Stephens)*	-	-		-	-	-	-	-	-	-	-	~	-	-	
Philoeopium ciypeatum Mull. Megarthrus depressus (Paykull)	-	~	-	P			P	-	P	-	-	-	P	NA*	
M. affinis Miller	-	-	-	P	$\sim$		P	-	P	-	-		2	-	
M. denticollis (Beck)	1	-	-	-	-	-	-	x	-	-	-	M *	-		
M. hemipterus (Illiger)	-	-	-	-			-	**	-	-	-	-	Ρ	-	
Proteinus ovalis Stephens P. brachypterus (Fabricius)	_	-	-	P	-		5	-	r		-	1	P		
Acrolocha sulcula (Stephens)		-	-	$\sim$	-	-	Ρ	-	Ρ	-					
Homalium striatum Gr.	-		-	P*	1 -	-	-	-	-	-	-		-	=	
Omalium laeviusculum Gyllenhal		9	1	-	1	(9)	Ρ	1	Ρ	-	-		Ρ	M*	
O rivulare (Paykull)	P		-	P .	2		P	-	P		-	-	-		
Homalium rivulare Pk.	-		-	Р	-		-	-	-			-			
O. allardi Fairmaire	+-		-	-	-	$\sim$	P	-	Ρ		-		-		
Homalium allardi Fairm.		24	-	P*			-		-	-			~	-	
O. excavatum Stephens	-	-	-	D*	-		Ρ	-	Ρ	-		~			
Xylodromus concinnus (Marsham)				-	-	-	Ρ		P	-		-		M*	
Homalium concinnum Marsh.	-	~		Ρ	-		-		-						
Philorinum sordidum (Stephens)				P*	-		Р		Ρ				Ρ		
Micralymma marinum (Stroem)	-	-			P		-		-						
Lesteva punctata Erichson		~		P*	-		P		P	M*					
L. heeri Fauvel			~	-	-	~	-			M*					
Carpelimus elongatulus Erichson		-					-								
Trogophloeus elongatulus Er.			-	P*	-		Ρ		Р						
Oxytelus rugosus F.	-	-		P	1		Р		P						
A. mutator (Lohse)	-		-	100	-									M*	
A. sculpturatus (Gravenhorst)							$\sim$						P		
A. complanatus (Erichson)				D*		-	p		D	M.*			D		22
A tetracarinatus (Block)	-			r			r		1				P	M*	32
Oxytelus depressus	P	-		-						-					32
O. tetracarinatus Block	-			P			Ρ		Ρ						
Oxytelus sculptus Gravenhorst					P										
Stenus ouvnemeri Du Val		-		P*	-		P		P					M*	
S. clavicornis (Scopoli)							Ρ	-	P				Ρ	M*	
S. boops Gyll.	P			-		5	-							-	
S. speculator Lac.		~	le.	P۰			P		P						
S providus v rogen Kr.			-	P*						IVI				-	
S. boops Ljungh		-	-	-				$\sim$				M		M*	
S. buphthalmus Gr.		-		P*			Ρ	1	Ρ	1			1	$\sim$	
S. nanus Stephens		-		-			Ρ		Ρ		-		Ρ		
S. declaratus Er				P P*			P		P			м	P		
S latifrons Frichson				P			P		P						
S. fulvicornis Stephens							Ρ		Ρ						
S. paganus Er.				P											
S. cicindeloides (Schaller)				P			P		P		Ρ			IVI ·	
S. flavipes Stephens			-	P*			P		P	M*				M*	
S. impressus Germar				P*			Ρ		P					M*	
S. impressus (Erichson)	P				-										
S. erichsoni Rye				в	Р		D		P						
S. ossium Stephens	_	-		P*	-	-	P		P						
Eugesthetus biounctatus (Liungh)		_	*				P		P						33
Evaesthetus scaber Gr.	-	-	-	Ρ		-	100				-				
E. ruficapillus Boisduval & Lacordaire			-	P*			P		P						33
E. laeviusculus Mannerheim		-	-	P	-	-	P		P	*	2		Р		33
Astenus nulchellus (Heer)	-	2	-	-	-		_		-	-			-		
Sunius diversus Aub.	-	-	-	-	Ρ	-	-20	-	-	-	-	-	-	100	
A. Iyonessius Joy	-	$\overline{a}$	-	10		-	-	-	-		-	~	-		
Sunius angustatus Pk.	-		~	Р		-	D	-	P	-	-	1	-	-	
Astenus angustatus Pk.	-	-	-	-	-	-	F	-	г	-	-	-	-	1075	

	TVW	FS	FAW	<b>CHN</b>	M&D	WSB	KGB	GDHC	JEC-T	CMFvF	KGVS	CMK-J	RCW	MJD8	
Rugilus orbiculatus (Paykull)		-	1	-	-	-		-	-	-	-	м	-		
Stilicus affinis Er.	-	-	-	Р*	-	-	P	-	P	-	-				
B erichsoni (Fauvel)	-	-	-	-	-		-	-	-	-		-	-	-	
Stilicus orbiculatus Er.	-		246	P*	1.000		-	-	-	-				-	
S. erichsoni Fauv.	~	-	-	-	-	-	P	-	P					-	
Medon brunneus (Erichson)	-		-	P .	P	-	ŗ		r		-	-	P	-	
L. elongatum (Linnaeus)	-	-		P	-	-	Ρ		Ρ			-	-	-	
L. geminum Kraatz	+	100			Ρ	-		-					1.0	-	
L. fulvipenne Gravenhorst		~	100	P*		-	P	-	P						
Cryptobium fracticorne (Paykull)			-	100			P	-	P	-	-				
C, glaberrimum Hbst.				Ρ			-	(+)	-				~	-	
Gyrohypnus fracticornis (Muller)				P			0	-	-		1		-	M*	
Xantholinus punctulatus Pk.	P			P P*			P	P	P	× .			P	M.+	
X linearis (Olivier)	,			P*			P		P	-	-	M	P	-	
Gyrohypnus linearis	Ρ											+			
X. longiventris Heer				Р			P		P					-	
O fuluiospais E				P			F		r				-	IVI ·	
O laeviusculus Stephens					Ρ				-					-	
O melanocephalus (Gravenhorst)				P			Ρ		Ρ			м		M*	
O. myrmecophilus Kiesenwetter														M *	
Actobuls cinerascens (Gravenhorst)				P*			Р		Р						
Philonthus splendens (Fabricius)				P			P		P						
P intermedius Boisduval & Lacordaire				P			Ρ								
P aeratus	Ρ			0			0		D			-		~	
P. laminatus (Creutzer) P. politus (Lionaeus)				P			r		F	-				M*	
P aeneus Rossi				Ρ			Ρ		Ρ		-	-			
P succicola l'homson													1	M*	
P ochropus (Gravenhorst)													Ρ		
P sanguinolentus (Gravenhorst) P company Stephens													P	IVI -	
P politus F				P											
P. fuscipennis Mano							P	Ρ	Р				-		
P vanus (Gyllenhal)				P۴			P	Ρ	Ρ			м	P	M *	
P marchatus (Stroem)					P								r		
P craentatus (Groeina)				P*			Ρ		Ρ						
P vanans (Paykul)				P*	P		Ρ		Ρ				Ρ	M*	
P lituratus	Ρ						D		D						
P adures (Gravenhorst) P albres (Gravenhorst)				p*			P		P					M*	
P Innetanus (Gravenhorst)				Р			Ρ		Ρ						
P cephalotes (Gravenhorst)				P*			Ρ		P					M*	
P sordidus (Gravenhorst)													P	141	
P pachycephaids Nordm P nigrita (Gravenborst)							ρ		P						
P mgrita Nordm				P*											
P micans (Gravenhorst)															34
P micantoides Benick & Lohse				D*			p		P						3.
Gabrus vernalis (Gravenhorst)				<b>.</b>											
Philonthus vernalis Gr				P*			Ρ		P				0.00		
G nigritulus (Gravenhorst)													Р		
G trossulus (von Nordmann)				P			P		P						
G pennatus Sharp	(Si	ngle	₽ н.	Last 1	16 vii	195	0)								
G. velox Sharp													-	M*	
G. piliger Rey ? (single Q)				D			D		0			1	D	M*	
Catius xantholoma (Gravenhorst)	P			P			P	-	r						
C. fucicola (Curtis)													P		
Staphylinus erythropterus Linnaeus				P*		Ρ	Ρ		Ρ	-					
S olens Muller							Ρ		Ρ	M*		M		M *	
Goenus olens Ocyous olens Mull	Ρ	P	P	p											
S aeneocephalus Degeer		-						Ρ							35
S. cupreus Rossi															35
S. aeneocephalus	Ρ	-		C					17						
Ocypus cupreus Ross. Staphylinus appeocephalus DeC		-	-	٢			P		P		1				
S. ater Gravenhorst	-	-	-		-	-	P	-	P	-	-				
Ocypus ater Gr.		-	-	P*		-	-	-	110	-	-	$\mathcal{F}^{(m)}$	-		
S. compressus Marsham.		-	-	-			Ρ	-	Ρ	-	-		Ρ		
Ocypus compressus Marsh.	Ρ	-		P*	H. Jac	-	P	-	P	-					
Leistotrophus murinus L.	-	_		P	-		-	-	-	-	-				
Creophilus maxillosus (Linnaeus)	-	10.	-			-	-	-		-	~	-	Ρ		
		20	2												

	WVT	FS	FAW	ΓHN	M&D	WSB	KGB	GDHC	JEC-T	CMFvF	KGVS	C-MK-J	RCW	MJDB	
Heterothops praevius Erichson	-	-	-	P*	-	-	Р	-	Ρ	_	-	-	-	-	
H. dissimilis (Gravenhorst)	-	-	-	P*	-	-	Ρ	-	Ρ	—	-	-	-	-	
Quedius fulgidus (Fabricius 1/92)	-	-	_	P	-	_	P	-	P	_	_		P	_	
Q. fuliginosus (Gravenhorst)		_		P	_	-	P	_	P	-	-	-	P	M*	
Q. tristis (Gravenhorst)	Р	-	-	P	-	-	Ρ	Ρ	Ρ	-	-	м	-	-	
Q. molochinus (Gravenhorst)	-	-	-	Ρ	-	-	Ρ	-	Ρ	-	-	-	-	-	
Q. nigriceps Kraatz	-	-	-	-	Р	-	P	-	P	- M#	_	-	5		
O semiobscurus Marsham	-	_	_		_	_	-		-	-	_	M	P	-	
Raphirus semiobscurus	Р	-	-	-	-	-	-	-	-	-	-	-	-	-	36
Quedius rufipes Gr.		-	-	P*	-	-	Ρ	-	Ρ	-	-	-	-	-	~ ~
Q. semiaeneus Stephens	-	-	-	P*	-	-	Р	-	Р	-		-	-	- M#	36
O attenuatus Gvll	_	_	_	P	_	-	P	-	P	_	_	-	-	-	
Q. boops (Gravenhorst)	_	-	-	P*	-	-	P	-	-	-	-	м	-	M*	37
Raphirus boops	Р	-	-	-	-	-	-	-		-	-	-	-	-	
Mycetoporus lepidus (Gravenhorst)	-	-	-	Ρ	-	-		-	-		-	-	-	M*	
M. brunneus Marsh.	-	-	-	-	-	-	-	Р	-	-	-	-	Р	-	
Bolitobius apalis (Paykull)	-	_	_	-	5	_	_	_	-	-	-	_	2	-	
Megacronus analis Pk.			-	P*	-	-	-	_	-			-	-	-	
B. cingulatus (Mannerheim)	-	-	-	-		-	-	-	~	-	-	-	-	-	
Megacronus cingulatus Man.	-	-	-	-	P		-	-		-	-	-	7		
Sepedophilus marshami (Stephens)	-	-	-	1	-	-		-	~	M.*	-	-	-	M*	
S. nigripennis (Stephens)	-	-	-	_	P	_	_	_	_		2	-	-	141	
Conosomus lividus Er	-	-	_	-	-	-	-	*		2	-		P	-	
Tachyporus nitidulus (Fabricius)	-	-	-	-	-	-	Ρ	-	Ρ	-	-	~	М	M*	
T. gracilis	P	-	-	-	-	-	-	-	-	~	-	-	-		
T. pyrrhopterus	P	-	-	-	-	-	-	-		-	-	-	-	-	
L brunneus F.	-	Р	2	P	-	-	P	-	P	M*	-	M	-	M*	
T. atriceos Stephens	2	-	-	5	-	_	P	-	P	-		-	-	M*	
T. humerosus Er.		-	-	P*		-	2			-	-	-	-	-	
T. tersus Erichson		-	-	-	-	-	5	-	-			7	-	M*	
T. chrysomelinus (Linnaeus)		-	-	P			Ρ		Ρ	M*		-	Р	M*	
T. pallidus Sharp	-	-	-	Р	-		P		P		_				
T byonorum (Fabricius)	P	-	_	Р	-	-	P		P		-		P		
T. solutus Erichson	-	-	-	P*			Р	$\sim$	Ρ	M*	141		Ρ	M*	
T. merdarius	P	-	$\equiv$	-	-	~				-	-			-	38
T. formosus Matthews		~		P*	-		P		P				-		
Lamprinodes saginatus (Gravenborst)	P	-	-	r	-	2	P	-	P	-	-			2	
Lamprinus saginatus (Gravennoist)	-	-	-	P*		-	-	-	2	-	-			4	
Tachinus rufipes (Degeer)	-	-	-	P*	-	-	Ρ		Ρ		-			M*	
T. signatus Gr.	-	-		-	-	-	-		-	~	-	-	Ρ		
T. marginellus (Fabricius)	5	-	-	P*	-	~	Р		Р		-	-	M	IVI *	
L. corticinus Gravenhorst Hypocyphtus Jaeviusculus Mannerheim	-		_	-	2		-	-	-	-			IVI	-	
Hypocyptus laeviusculus Mann.				P	-	-	P	-	Ρ	-	-	-	-		
Myllaena brevicornis (Matthews)	-	-	-	P*	-		Ρ	~	Ρ	-	-	-	-	M*	
M. infuscata Kraatz	-	-	-	-	-	-	-		-		-	-	-	-	
M. infuscata Mat.	-	-	-	P+	-	-	P	-	P	-	-	-	_	_	
M. Infuscata Kunz. Oligota pusillima (Gravenborst)	-	_	_	P*	-		P	-	P	-	_	_	-	-	
O, picipes Stephens	-	_	-	-	-	-	-	-	-		-	-	-		
O. atomaria Er.	-	-	-	P	-	-	Ρ		Ρ	-	-	-	12	-	
O. punctulata Heer	-	-	-	P	-	-	P	-	P	-	-	-	Р	-	
O. inflata (Mannerheim)	-	-	-	P	-	-	P	_	P	_	_	-	-	-	
Anomognathus cuspidatus (Frichson)	-	-	_	-	-	-	-	_	-	_	_	-	M	-	
Heterota plumbea (Waterhouse)	-	-	-	-	-	-	P	-	Ρ	-	-	-	P	-	
Alianta plumbea Wat.	-	-	-	P*	-	-	-	-	-	-	-	-	-	-	
Autalia rivularis (Gravenhorst)	-	-	-	-	-	-	-	-	-	-	-	-	-	M*	
Cordalia obscura (Gravenhorst)	-	-	-	D	-	-	P	_	P	-	_	-	P	IVI -	
Myrmecopora uvida (Frichson)	-	-	_	-	2	_	-	_	-	_	_	-	P	-	
Gnypeta carbonaria (Mannerheim)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
G. labilis Er.	-	-	-	P*	-	-	P	-	P	-	-	-	-		
G. rubrior Tottenham	-	-	-	M	- 1	-	-	-	-	-	-	-	-	-	39
Callicerus obscurus Gravenhorst	-	-	-	P*	-	-	P	-	P	-		_	_	M*	
Homalota analis (Gravennoist)	-	-	2	P*	-	_	-	-	-	-	-	-	-	-	
Sipalia circellaris (Gravenhorst)	-	-	-	-	-	-	Ρ	-	P	-	-	м	-	M*	
Homalota circellaris Gr.	-	-	-	P	-	-	-	-	-	-	-	-	-	-	
Nehemitropia sordida (Marsham)	-	-	-	-	-	-	-	-	-	-	-	-	-		
Homalota sordida Marsh.	-	-	-	P*	_	_	P	-	P	-	-	-	-	-	
Athera sordida marsh.		_	_	_	-	-	-	-	-	-	-	-	-	-	

			TVW	FS	FAW	CHN	MAD		KGB	GDHC	JEC-T	CMFvI	KGVS	CMK-	RCW	MJDB	
Homalota clancula Er.		1	 -	-	-	-	Р		-		-	-	-	-		-	
Dinaraea angustula (Gyllenhal)			-	-	-	-	-	-	-	-		-	-	-		-	
Atheta angustula Gull			-	-	-	P*		-		-	-		11.27				
Atheta hydrotopora (Kraatz)			-	-	-	100	-	-	P		Ρ				-	M.	١ <u>.</u>
Homalota hygrotopora Kr.				-		Р						-					
A. palustris (Kiesenwetter)			-	~	-		-	~	Ρ		Ρ		-	-			
Homolata palustris Kies.			-	-	-	Ρ	-	-	-				-				
A. Harwoodi Williams			-	-	-	-				21		-				M	*
A. nigricornis (Thomson)			-	-	-	1	D				-		-				
A. amicula (Stephens)			0	2		-	-		P		P					MA	*
Homalota sericea Muls.				-	-	P	-		-		-				-	141	
A. atricolor (Sharp)					-	-	-							-		M	*
A. indubia (Sharp)				-			-	-			-				Ρ		
A. trinotata (Kraatz)			3		-	-			Ρ		Ρ				М		
A fundi (Gravenborst)						Ρ		-							D		
Homalota fungi Gr.				-		P								-	r	IVI	
A muscorum (Brisout)				1	-			-						M			
A. nigra (Kraatz)						-			-						Ρ		40
Homalota nigra Kr.					$\approx$	P			2	-		-			-		
Atheta zosterae Th.	-			100	-				P		P	7		-	-		
Homalota sordidula Er						D			P		Ρ			-	Р	-	
A. zosterae (Thomson)										-				_	P	M.*	+ 40
A aquatica (Thomson)				-	2				-				-			M	*
A. triangulum (Kraatz)				-		3		3	Ρ	100	Ρ	-	-				
Homalota triangulum Kr.					100	P*				-	-	++.					
A. crassicornis (Fabricius)							1.00		-				-		115	M	*
A angusticollis (Thomson)				1.00		IVI *						-	-		D		41
A. atramentaria (Gyllenhal)									P		P	-		-	P	M4*	41
Homalota atramentaria Gyll.					-	P*			2		-	-	-	-			
A. cauta (Erichson)									-	-		-	-		Ρ		
A. ischnocera Thomson						-				-	-		-	-	Ρ	M*	1
A. macrocera (Thomson)					~				7	100	$\sim$	~	-		-	M*	*
A longicornis (Gravenborst)									D			-	-		P		
Homalota longicornis Gr						P			F		r	-		IVI	Р	IVI *	
A. vestita (Gravenhorst)											-		-	-	-	M*	
Halobrecta flavipes Thomson									-		-	-	-	-	-	-	
Atheta flavipes (Thoms.)									-	-	-	-		-	Ρ	-	
Drusilla canaliculata (Fabricius)			-			Ρ	Ρ		Ρ	-	Ρ	-		м	Ρ		
Astilbus canaliculatus			Ρ						-	-	-	-	-		-	×	
Myrmedonia limbata Pk						P*			P		P	-	1	-	100	-	
Lomechusa emarginata (Paykull)					-	-							-	2	121	-	
Atemeles emarginatus Pk.						P*	Ρ		Ρ	-	Ρ	-	-	-	-	- 1	
Tinotus morion (Gravenhorst)					-	-	-		-	-	-	-		8	Ρ	M*	
Meotica exilis Erichson					-	1	-		Ρ		Ρ	-	-	-	-	ι,Ξ	42
Homalota exilis Er.				-	-	P*	-	1	-		-	-	-	-	-	-	
O elongatula Aub				-		P			P	-	P	-	-	-	-	-	
O haemorrnoa Mannerheim					2	P			P		P	_	-	1	P	12.1	43
Crataraea suturalis (Mannerheim)							*	-	P	-	P	-		-	-	-	
Microglossa suturalis Mann.					-	Ρ	190	-	-	100	-	-	-	-	-		
Aleochara curtula (Goeze)				-		-	-	-	Ρ	-	Ρ	-	-	-	Ρ	M*	
A. TUSCIPES F.			Ρ			Ρ	-	-	-	-	-	.77	-		-	Store	
A succicola Th						D*		-	P	-	٢	-	-	-	P	-	
A Januginosa Gravenhorst			P	2		P*	-	_	P	0	P	1	-	-	P	M*	
A albovillosa Bernhauer			2			-	-	-	-	-	-	-	-	-	P	M*	
A. cuniculorum Kraatz			-			P*	120		Ρ	-	P	-	-	-	P	-	
A bipustulata (Linnaeus)			1	-		-	=	-	Ρ	-	Ρ			-	Ρ	M*	
A. nitida Gr.			Ρ	-		Ρ	171	-	-	-	-	1	-	1	-	-	
A. grisea Kraatz			e			-				-	-	-	-	~	-	Ξ.	44
algarum Fauvel			-	-	-		-	-	-	-	-	-	-	7	Ρ	M*	
Polystoma obscurella			P			-	_	-			2	-	171	-	T	151) V	44
Aleochara grisea Kr.			5	-	-	P	2	2	P	_	P	-	-	2.1	0	(R) ()	
SELAPHIDAE																	
bibloplectus ambiguus (Reichenbach)				-	-	-		-	Ρ	-	Ρ	-	-	-	-	-	
Euplectus ambiguus Reichb.			-	-	-	P	-	~	-	-	-	-	-	-	-	-	
venus niger (Paykull) (vaxis bulbifer (Beichenbach)			-	-	-	Р	-	-	Р	-	Ρ	-	-		-	-	
Bythinus bulbifer Reichb			_	2	_	P*	-	-	P	-	P	3	-	2	1	-	
. puncticollis (Denny)			-		-	-	-	-	-	-	-	-	-	-	-	0.1	
Bythinus puncticollis Den.			-	-	-	P*	-		-	-	-	-	-	-	-	-	
B. validus Aub.			-	-	-	-	-	-	P	-	P	-	-	-	1	- 1	

		TVW	Ł	FAW	ΓHN	M&D	WSB	KGB	GDHC	JEC-T	CMFv	KGVS	CMK-	RCW	MJDB	
Brachygluta fossulata (Reichenbach)		-	-	-	-	-	-	-	-	_	_		-		M	*
Reichenbachia juncorum (Leach)		-		-	-	-	-	P	-	Ρ	M	* -	-	-	M	E .
Bryaxis juncorum Leach		-	-	-	P	-	-	-	-	-	-	-	-	-	-	
Pselaphus heisei Herbst		-	$\overline{\gamma}$	-	Р	-	-	Р	-	Ρ	-	-	-	-	-	
GEOTRUPIDAE																
Typhaeus typhoeus (Linnaeus)		-	_		-	10			_					54		
T vulgaris		P	-			- 2					_	_	_	IVI	-	
Geotrupes typhoeus L.		-	-		Р	-	_	P		P	_	_	_	- 2	0.20	
Geotrupes mutator (Marsham)		-	-		P	-	-	P	-	P	-	-	-	-	-	
G. stercorarius (Linnaeus)		-	-	-	P	-	-	P	-	P	M	*	-	Р	M*	
G. stercorosus (Scriba)		-	-	-	-		-	P	-	P	M	• _	M	-	M*	
G: sylvaticus Pz.		Ρ	-	-	P*	-	-	-	-		-	-	-	-	-	
COADADASIDAS																
SCARABACIDAE																
Aphodunae																
Aphadius erraticus (Linnaeus)		-	-	-	-	-	-	-	-	_	M.	-	-		-	
C forsor (Lippaque)		-	577	-	P*	-	-	P	-	Р				-	1.	
Aphodius fossor I		D	-	-	- D*	-	-	-	-	-	IVI 1	-		-	M.+	
Aphodius ater (Degeer)		P		-	P	_	-	P	_	P			-	-		
A depressus (Kugelann)		F		_	P	_	_	P	-	P	IVI T	-	-	P	IVI *	
A fimetarius (Linnaeus)					P			P	-	P	NA 4	-		P		
A. foetens (Fabricius)		2	-		-		- 2				IVI			_	BA 1	
A. Iuridus (Fabricius)		_	-	-	P	_	1	P	_	P	-		-	2	IVI	
A. luridus v. nigripes F.		-	-	_	P*	_									_	
A. depressus v. nigripes Steph		-	-	-	-	-	-	P	_	P	-	_			-	45
A. pusillus (Herbst)		-	-	-	P*	-	-	P	_	P	-	_	-	_	-	45
A. rufipes (Linnaeus)		-	-		P*	1	P	P	-	P	M	k	M	-	M*	
A. sphacelatus (Panzer)		-	-	-	-	-	-	-	-		M		-	P	M*	
A. punctatosulcatus Sturm		-	-	-	P	-	-	P	-	P	-		-	-	_	
<i>Melolonthinae</i> Serica brunnea (Linnaeus)		Р	-	-	Ρ	-	-	Ρ	-	Ρ	-	_	2	_	M*	
Cetoniinae Cetonia aurata (Linnaeus)		Р	Р	-	Р	Р	-	Р	Р	Р		-		Р	M*	
DASCILLIDAE Dascillus cervinus (Linnaeus)		-	-	-	-	-	-							P		46
																40
CLAMBIDAE																
Calyptomerus dubius (Marsham)		$\rightarrow$	-	-	P	-		P	-	P		-	-	M	-	
Clambus armadillo (Degeer)		-	-	-	Ρ	-	-	P	-	P	-	-	-	-		
C. pubescens Redtenbacher		-	~	-	P*	-	-	Ρ	-	P	-	-	-	-	-	
CIPTIDAE																
SCINIDAE																
Syphon hilaris Nyholm		-	-	-	~		-	-		-	-	-		-	M*	
VRRHIDAE																
								-								
Simplocana semistriata (Fabricius)		100		-	Р	-	-	P	-	P		-	-	-	-	
C worker E		-		-	-	-	-	Ρ	-	Ρ	~	-	-	-	-	
C. varius F.		-	-	-	Р	**	-	-	-	-	-	-	-	-		
symus lascialus (Forster)			-	-	-	-	-	-		-	-	-	-	-	M*	
piùla cimacus		F		-	P	-	~	P	-	P	~	-	-	-	-	
RYOPIDAE																
Dryops auriculatus (Fourcroy)			-	-	-	-	-		-		-					47
) luridus (Frichson)																47
Parnus prolefericornis (sic)		-			-		-		-	-	M*	-	-	-	M*	47
P prolifericornis F		٢	_	-	-	-		-	-	-	-	-	-	-	-	
Dryops auriculatus Geoff		-	-	-	Ρ	-	-	-	$\sim - 1$	-	-	-	-	-	-	
		100	-	() <del>_</del> )	-	-	~	Р	-	Ρ	-			-		
ATERIDAE																
grypnus murinus (Linnaeus)		P			0.0											
Lacon murinus L.		_	-		P			D	-	-	IVI *			-	-	
Adelocera murina L.		_	-	_	÷.	_	-	F	-	٢	-	-	-	-	-	
ardiophorus erichsoni Buysson		-	_	-	p*	P	_	P	-	-	-	-	-	Р	-	
lelanotus rufipes (Herbst)		-	-	-	P	P	P	P		P	-	-	-		-	
M. fulvipes		P	-	-	-	-	5	-	-	5	_	-	-	-	-	
thous haemorrhoidalis (Fabricius)		-	-	_	Р	P	-	P	2	P	_	-	-	P	N##	10
Aplotarsus haemorrhoidalis		P	-	-	_	-	-	-	2	5	-	-	-	F	IVI +	48
. vittatus (Fabricius)		-	-	-	-	-	-	_		_	_	_	_	_	A4*	
elatosomus aeneus (Linnaeus)		-	-	-	-		_	-		_	M*	-	2.	-	IVI *	
Corymbites aeneus L.		-	-	-		P	P	-	_	_	141	_	210	-	-	
rosternon tessellatum (Linnaeus)		-	-	-	-	-	-	_	2	-	M*	_	_	P	N4 *	
Lepidotus holosericeus		Ρ	-	-	-	_	-	-		_		_	-	5	IVI *	
Corymbites holosericeus F.		-	-	-	P	-	-		-	-	_	_	-	-	_	
Prosternon holosericeus OI.		-	-	-	-	-	-	P	-	Р	_	-	-	-	-	
griotes acuminatus (Stephens)		- 1	-	-	-	-	-	-	_	-	-	-	-	P	-	
lineatus (Linnaeus)		P	-	-	P	_	-	P		D						

		TVW	FS	FAW	CHN	M&D	WSB	KGB	GDHC	JEC-T	CMFvH	KGVS	C-MK-J	RCW	MJDB	
A. obscurus (Linnaeus)		-	-	-	Р	-	-	Ρ	-	Ρ	M*	-		Ρ	M*	
A. pallidulus (Illiger)		-		-	P	-	-	P		P	M*	-	-	Ρ		
A. sputator (Linnaeus) Dalopius marginatus (Linnaeus)		P	-	_	P*	-	-	P _	-	P	-	-	-	P	M*	
Dolopius marginatus L.		Р	-	-	P*	-	-	Ρ	-	Ρ	-	-	-			
Adrastus nitidulus (Marsham) A. limbatus F.		P		-	P	-	-	P	-	- P	-	-	-	-		
CANTHARIDAE																
Cantharis cryptica Ashe		-	-	-	-	-			-	-	-					
Telephorus bicolor F.		-	-	-	-	Ρ	-		-		-	1	-			49
C. decipiens Baudi   Telephorus baemorrhoidalis E		-	-	_	P	-	_	_	_	-	_			-		40
Metacantharis haemorrhoidalis F.		-	-	-	-	-	-	P		P	-	-				
C. rufa Linnaeus		-	-	-	-	-	-	-	-	-		-		P		50
C. lituratus Fall.		-	-	-	-	-	-	-		-	-	-		-		
Rhagonycha femoralis (Brulle) B limbata Th		-	_	-	-	P	-	_	_	_	-	_	-	6	-	
R. fulva (Scopoli)		-	-	-	-		-	-		-	-	-	м	P	M*	
Telephorus melanurus		-	-	Ρ		-	-	-	-	-	-	-	-	-	-	
R. testacea (Linnaeus) ?		-	-	-	Ρ	-	-	Ρ	-	Ρ	-	-	-	-	1 (M)	48
Althious seriepunctatus Kiesepwetter		P	-	_	_	_	-	_	-	_	_		-		M*	
M. fasciatus Ol.		-	-	-	-	Ρ		-	-	-	-	-	-	Ρ	-	
ANOBIIDAE																
Anobium punctatum (Degeer)		-	-	-	-	-	-	-	-		12	-	-	Ρ	M*	
Ptilinus pectinicornis (Linnaeus)		Ρ	-	-	Ρ	-	-	Ρ	-	Ρ	-	-	-	-	-	
PTINIDAE																
Ptinus fur (Linnaeus)		-	-	-	Ρ	-	-	-	-	-	-	-	-	-	-	E 4
P sexpunctatus Pazer		-	-	-	-	-	-	P -	-	P -	-	-	_	-	-	51
CLERIDAE										0						
Necrobia violacea (Linnaeus)			-	-	Р	5	-	Ρ	-	Ρ	-	-		20	M.+	
MELYRIDAE																
Psilothrix viridicoeruleus (Fourcroy)		D	-	-	-	-	-	-	-	-	1	1			-	
Psilothrix nobilis III		-	-	-	P	-	-	-		_	-	_	-	-	-	
P cyaneus OI			17		-	-	-	Ρ		Ρ	-	-	-	Ρ	-	
NITIDUUDAE																
Kateretes rufilabris (Latreille)		-	-	-	-	-	-	-	-	-	-	-	-	Р	M*	
Cateretes junci		Р	-	-	-	-	-	-	-		-	-		-	-	
Cercus rufilabris Lat			Ρ		Ρ	-	-	-	-	-	***	-	-	-	-	
Cateretes rufilabris Latr			-		-	-	-	Ρ	-	0	-	-	-			
Brachypterus (Stephens)			1		2	0	-	P	-	P	-	_	_	P	M*	
Cateretes glaber		P	-	-	-	-	-	-	-	-	-	-	-	-	-	
Brachypterus pubescens Er				-	P*	-	-	-	-	-	-	-	-	-	-	
B urticae (Fabricius)				-	P*	-	-	Ρ	-			-	м	Ρ	M*	52
Brachynterolus pulicatus (Linnaeus)		Р		-	_	_	-	_	-	-	-	_	_	-	_	
Heterostomus pulicarius L.			-	-	-	-	-	-	-	-		-	-	Ρ	1	
Meligethes aeneus (Fabricius)		5			Ρ	-	-	Ρ	-	Ρ	-	-	-	-	-	52
M urticae		Ρ		-	-		-	-	-	-	-	-	-	-	-	
M Jugubus Sturm			P	-	P	-	_	P	-	P	IVI	_	-	-	-	
M.obscurus Erichson			-	-	P*	-	-	P	-	P	-	-	-	Р	-	
M.umbrosus Sturm		-	$\pi$		-		-	-	Ρ	Ρ		-	-	12	-	
M.viridescens (Fabricius)		Ρ	~	-	P*	-	-	Ρ	-	Ρ	~	-	м	Ρ	-	50
Nitidula aestiva		P	-	_	P	_	_	_	_	-	_	_	1	-		53
Epuraea depressa III.		-	-	-	-	-	-	Р	-	P	-	-	-	-	-	
Nitidula bipunctata (Linnaeus)			-		-	-	-	Ρ	-	Ρ	-	14			-	
N. bipustulata L.		-	-	-	P	-	-	-		-	-	-		-	-	
N. rumpes (Linnaeus) Omosita colon (Linnaeus)			1	-	P	-	_	P	-	P	-	5	1	P	*	
O. discoidea (Fabricius)		-	-	-	P	1	-	P	-	P	-	-	1.21	-	-	
RHIZOPHAGIDAE Monotoma brevicollis Aube		1	_	_	Р*	-	-	Ρ	-	Р	-		1 0 1 h	1	1112	54
CRYPTOPHAGIDAE																
Cryptophagus cellaris (Scopoli)		-	-	-	Ρ	-	-	P	-	Ρ	-	-	-	1.2	-	
C. laticollis Lucas		-	-	-	-	-	-	-	-	-	-	-	-	Ρ	M*	
C. affinis Stm.		-		-	P*	-	-	Ρ	-	Ρ	-	-	-	-		
C pseudodentatus Bruce		_	-	-	-	_	-	_	_	-	-	-	-	P	-	

	 <b>V</b> L	FS	FAV	ΉΝ	β	WS	KGE	GDI	JEC	CM	KGV	CM	RC	Ĩ	
C. saginatus Sturm		-	-	P*		-	Ρ	-	Ρ	-	-	-	-		
C. scutellatus Newman			-	-	-	-	Ρ	-	Ρ	-	-	-	-	-	
C. bicolor Sturm	-	-	-	P	-	-	-	-	-	17	-	-		-	
C. setulosus Sturm	~		-	P*	-	-	Ρ	-	Ρ	1000		-	-	-	
Micrambe vini (Panzer)	-	-	-	P*	-	-	Ρ	-	Ρ	-	-		-	M*	
M.villosa (Heer) ( = vini Pz.)		-	—		-	-		-	-	-	-	-	P	-	
Atomaria apicalis Erichson		-	-	P*	-	-	Ρ		Ρ	-		M	Ρ	M*	
A. atricapilla Stephens	P	-	-	P*	-	-	P		P	-	-	M	P	M*	
A berolinensis Kraatz	-		_	P	-	-	-	-	-	M*			-		
A bicolor Fr	_		-	_	-	-	P	-	P	-	-	-	-	-	
A fuscata (Schoenberr)				P			P		P						
A fuerines (Cullenhel)	D			P			b		P				D		
A louis Deitter	r.							-		-					
A. lewisi Reitter		-	-	D.*	-	_	-		-	-	-	IVI			
A. munda Erichson		-	-	P.	-	-	P	-	P	-		-	P	-	
A. ruticornis (Marsham)	-	-	-	Ρ			Ρ		P	-	-	-		100	
Ootypus globosus (Walti)	-		-		-				-	-	-		P	-	
Ephistemus globulus (Paykull) E. gyrinoides Marsh.	-	-	-	P*	-	-	P -	-	P -	-	-	M	P -	1.51	
PHALACRIDAE															
Olibrus affinis (Sturm)									1000						
O particops Muls	_			P	-		P		P			50			
C. particeps whis.	-	-	-	P	-	-	P	-	P			1			
Stilbus testaceus (Panzer)	-			P	-		F	-	г		1	8.7	-		
CORYLOPHIDAE							-								
Corylophus cassidoides (Marsham)	-	-	-	P*		-	P		P						
Orthoperus atomus (Gyllenhal)		-		٢		-	٢	1	٢					-	
COCCINELLIDAE															55 55 56 56
Subcoccinella vigintiquattuorpunctata (Linnaeus)		-		P*	-		P		Ρ		-				
Coccidula rufa (Herbst)	-			P			P		P		-			-	
Bhyzobius litura (Fabriceus)	-			-	-					M*					
Dhisshing liture C				D			P		P						
Rhizobius litura F.	1			P			F		r				D		55 55 56 56
Rhizobiellus litura L.													Р		
Scymnus limbatus Stephens	Ρ	Р							-						55
S. suturalis Thumb.	~			Ρ			Ρ		Р						
S. testaceus Mots.				P			P		P						
S. suturalis Thunberg	1.00														55
Nephus redtenbacheri (Mulsant)	-														
Scympus redtenbacheri Muls				P*			P		P						
Hyperasnis pseudopustulata Mulsant															
Coocinella rennensis	P														
Uverseenia reppenaia				p*			P		P						
Addia decempunctota (Lippoque)														N/1 *	
Adama decempunctata (Linnaeus)				D			D		P				P	ivi	
Coccinella nierogiyphica Linnaeus				r D			P		D				D		
C. septempunctata Linnaeus		D		P			P		P	IVI		M	P		
C. undecimpunctata Linnaeus		F					1								
ENDOMYCHIDAE							•								
Mycetaea hirta (Marsham)				Ρ			P		Ρ						
LATHRIDIIDAE															
Stephostethus angusticollis (Gullenhal)												M			
Aridius sedifer (Mestucod)												M		M*	
Andrus Hourier (Westwood)				D								141			
Lethridius pedifer Wester							P		P				P		
Latinidius nooner wes(W.							1		1.			M			56
Latinique pseudominutus (Strand)				P		1	P		P		-	IVI	-		50
Enicmus minutus L.				٢			r		Г		-	-			E.C
[L. minutus (Linnaeus)]							6		-		1				55 55 56 56
Enicmus transversus (Olivier)	-			Ρ			Ρ		Ρ	M*	-	M	-	M*	
Lathridius transversus	Р														
Dienerella ruficollis (Marsham)		-									-	-			
Cartodere ruficollis Marsh.				P	-		P		Ρ	-	-	-	-	10	
Corticaria crenulata (Gyllenhal)	P	***		Ρ		-	P		Ρ	1	-	-	-	-	
C. fulva (Comolli)			-	P	-		P		P		-		-	-	55 55 56
C impressa (Olivier)	-		-	-	-	-	P	-	P	-	-	-		- *	
C denticulata Gvll				P*			-		-	-		-	1.000	-	
C. definiculata Gyn.	-				2		P	1000	P			-	100	120	
Melenenthalma (usula lium	-	-	-	D	-		r	-		_	-	-	-		
wielanophthalma fuscula Hum.	-	-	- 1	۲	-		0		P	A			-		
O the (Use had)	-	-	-	-	-		٢	-	r	IVI *		IVI	-	IVI -	
C. gibbosa (Herbst)	۲	۲		-		-	-	-	-	-	-	-	-	-	
C. gibbosa (Herbst) Corticaria gibbosa				P	-	-	-	-	-	-		1	-	11	
C. gibbosa (Herbst) Corticaria gibbosa Melanophthalma gibbosa Hbst.	-	-		1000								N.4	P	-	
C. gibbosa (Herbst) Corticaria gibbosa Melanophthalma gibbosa Hbst. Melonaphthalma distinguenda (Comolli)	_	-		P*	Ρ	-	Ρ		P	-	-	141			
C. gibbosa (Herbst) Corticaria gibbosa Melanophthalma gibbosa Hbst. Melonaphthalma distinguenda (Comolli) M. transversalis (Gyllenhal)		-	-	P* -	P -	-	P 		P -	-	-	-	-		
C. gibbosa (Herbst) Corticaria gibbosa Melanophthalma gibbosa Hbst. Melonaphthalma distinguenda (Comolli) M. transversalis (Gyllenhal) Corticaria wollastoni	1 1 1	- - P	-	P* - -	P - -		P  	1	P 		-	-	-	-	
C. gibbosa (Herbst) Corticaria gibbosa Melanophthalma gibbosa Hbst. Melonaphthalma distinguenda (Comolli) M. transversalis (Gyllenhal) Corticaria wollastoni Melanophthalma transversalis v. wollastoni Wat.	1 1 1 1 1	- - P -	111	P*  	P - -	1 1 1	P  P	1	P - - P	1 1 1	111	-	-	-	
C. gibbosa (Herbst) Corticaria gibbosa Melanophthalma gibbosa Hbst. Melonaphthalma distinguenda (Comolli) M transversalis (Gyllenhal) Corticaria wollastoni Melanophthalma transversalis v. wollastoni Wat.	1 1 1 1	- - P -	1 1 1 1	P* - -	P  		P  P	1111	P - P		1111	-	-	-	
C. gibbosa (Herbst) Corticaria gibbosa Melanophthalma gibbosa Hbst. Melonaphthalma distinguenda (Comolli) M. transversalis (Gyllenhal) Corticaria wollastoni Melanophthalma transversalis v. wollastoni Wat. MYCETOPHAGIDAE Tvohaea stercorea (Linnaeus)	11111	- P -	1 1 1 1	P* - - -	P - - -	1 1 1 1	P  P P		P - P P	1111	1111	-	M	- M*	

		TVW	FS	FAW	ΓΗΝ	M&D	WSB	KGB	GDHC	JEC-T	CMFvH	KGVS	CMK-J	RCW	MJDB	
COLYDIIDAE		2	- 94					-								
Orthocerus clavicornis (Linnaeus)		-	-	-	-	-	-	Ρ	-	Ρ	-	-	-	-	-	
Sarrotrium muticum		Р	_	-	P	_	_	_	-	-	_	-	-	-	-	
Orthocerus muticus L.		-														
TENEBRIONIDAE																
Opatrum sabulosum (Linnaeus)				-	P*	-	-	P	-	P	M*	-		P	-	
Crypticus quisquilius (Linnaeus)		-	-	-	P*	-	-	P	P	P	N4*	-	M	P	M*	
Cylindronotus laevioctostriatus (Goo	eze)	P	_	_	P	-	_	-	_	-	-		-	-	_	
Helops stratus Fourc.					5											
ALLECULIDAE																
Isomira murina (Linnaeus)		-	-		-	-	-	Ρ	-	Ρ	-	-	-	-	IVI *	
Mycetocharus murina		P	_	_	P	_	_	_	_	_	- E -	_	-	_		
Cistela murina L. Cteniopus sulphureus (Linnaeus)		P	_	-	P*	-	Р	-	-	-	-	-	M	Ρ	-	
C. flavus Scop.		-	-	-	-	-	-	Ρ	-	Ρ	,-	-	-	-	*	
SALPINGIDAE Rhinosimus planirostris (Fabricius)		-	-	-	-	-	-	-	-	-	-	-	-	P	-	
MELOIDAE																
Meloe proscarabaeus Linnaeus		-	-	-	P*		-	Ρ	-	Ρ	-	-	-	-	-	5
M. violaceus Marsham		-	-	-	-	-	-	-	-		-	-	-	-		5
Proscarabaeus violaceus		Р	-	-	-	-	-	-	-	-	-	-	-	-	-	
CHRYSOMELIDAE																
Lema melanoua (Linnaeus)		-	-	-	P*	-	-	P	-	P	-	-	-		-	
Cryptocephalus fulvus Goeze		-	-	-	P	-	_	P	-	P	-	-	-	Р	-	
C. ochraceus		P	-	-		-	-	-	-	-	-	-	-	-	-	
C. pusillus Fabricius?		-	-		-	-	-	-	-	-	-	-		-	-	5
C. minutus		-	Р	-	-	-		-	-	-		-	-	-	-	
Chrysolina banksi (Fabricius)		P	-	_	_	_	_	_	_	P	_	-	-	-	-	
C. banksi F		-	_	_	P*	_		P	- 2	_	_	-	-	_	_	
C. hyperici (Forster)			_	-	_	-	_	_	-	P	-	-		-	-	
Chrysomela hyperici Forst.		Ρ	-	-	Ρ	-	-	P				-	-	-	-	
C. polita (Linnaeus)		$\overline{a}$	-	-	-	-	-	-	-	-	-	-	-	-	M*	
C. varians (Schaller)		-	_	-	- D	-	_	- D	-	Р	-	-	-	-	-	
Phaedon cochleariae (Fabricius)		-	_	_	P	-	-	P	_	P	-	_	_	_	-	
P. tumidulus (Germar)		-	-	_	P*	-	-	P	-	P	-	-	M	-	M*	
Phytodecta olivacea (Forster)			-		Р	-		Ρ	-	Ρ	-	-	-	Ρ	-	
Lochmaea suturalis (Thomson)		-	-	-	P	-	-	P	-	P		-	-	P	M*	
Phyllotreta atra (Fabricius)		-	Р	_	P	-	-	P	-	P	643		-	-	-	
Longitarsus atricillus (Linnaeus)		_	_	_	P	_	-	P	_	P	-	-	_	_	_	
L. exoletus (Linnaeus)		-	-	-	-	-	-	P	-	P	-	-	-	P	-	
Thyamis exoleta		-	Р	-	-	-	-	-	-	-	- 1	4	-	-	-	
Longitarsus femoralis Marsh.		-	-	-	P	-	-	-	-	-	-	-	-	-	-	
L. gracilis Kutschera		_		_	P	_		P	-	P	_	120	1			5
L. holsaticus (Linnaeus)		_	-	_	P	_	_	P	-	P	_	_	-		1	
L. jacobaeae Waterhouse		-	-	-	-	-	-	-		-	-	P	-	P*	-	60
Thyamis tabida		Ρ		-	-	-	-	-	-	-	-	-	-		-	
Longitarsus tabidus F.			-	-	Ρ	-	-	Ρ	-	Ρ	-	-	-	-	-	
L. flavicornis (Stephens)		_	-	-	- D*	-	-	P	_	P	-	-	-	-	-	60
L. Juridus (Scopoli)		-	-	_	P*		_	P	_	P	M*		_	P	_	
Thyamis lurida		-	P		-	_	-	_	-	-	-	_	-	-	-	
L. melanocephalus (Degeer)				-	P*	-	-	P	-	Ρ	-	-	-	-	-	
Thyamis melanocephala		-	Р	-	-	-	-	-	-	-	-	-	-	-	-	
L. membranaceus (Foudras)		-	-	_	Р	-		Р	-	Р		-	-	-	-	
L. nigrofasciatus v. distinguendus	(Rve)		_	_	_	_	_	_	_	_	_	_	_	P	-	
[L. ochroleucus (Marsham)]	(1190)	-	-	-	-			-	-	-	-	-	-	-	_	59
L. pellucidus (Foudras)		-	-	-	_	Ρ	-	-	-	_	-	-	12	·	-	
L. pratensis (Panzer)		-	-	-	-	-	-	Ρ	-	P	-	-	-	Р	-	
Thyamis pusilla		P	-	-	-	-	-	-	-	-	-	-	-	-	-	
Longitarsus pusillus Gvil		P		1.21	D*	-	_		_	-	-	- In		150		
L. succineus (Foudras)		_	_	_		_	_	P	-	P	12	-	12	P	M*	
Thyamis apicalis Waterh. MS.		P	-	-	-	-	-	-		-	-	-	-	_	-	
Longitarsus laevis Duft.		-	-		Ρ	-			_	-	-	-	-	-	1	
[L. tabidus (Fabricius)]		-	-	-	-	-	-	-	-	-		-	-	-	-	60
Altica oleracea (Linnaeus)		-	-	-	-	-	-	-	-	-	M*	-	-	-	M*	
Haltica oleracea I		P	_	_	P	_	_	P	_	P	-	2	-		1	
Crepidodera ferruginea (Scopoli)		-	P	-	P*	-	-	P	-	P	-	-	-	P	M*	
C. transversa (Marsham)		-	-	-	-	Ρ	-	Ρ	-	Ρ	M*	Ρ	м	Ρ	M*	
C. exoleta		P	-	-	_	-	-	-	-	-	-	-	-	-	-	

111414		TVW	FS	FAW	CHN	M&D	WSB	KGB	GDHC	JEC-T	CFMvF	KGVS	C-MK-J	RCW	MJDB	
Mantura chrysanthemi (koch)		Р	-	-	P*	-	-	Ρ	-	Ρ	-	-	-	Ρ	M*	1
M. chrysanthemi v. crotchi Al.		-	-	-	-	Ρ	-	-	-	-	-	-	-	-	-	
Plactroscelis concinna (Marsham)		_	-	_		-	-	P	-	٢	IVI *	-	-	-	-	
C. hortensis (Fourcrov)		_	-	_	P*		_	P	_	P	M	* P		P		
Sphaeroderma testaceum (Fabricius)		-	-	-	-	-	-	P	-	P	-	-	-	-	-	
S. cardui Gyll.		Ρ	-	-	P	-	-	-	-	-	-	-	-	-	-	
Apteropeda orbiculata (Marsham)		-	-	-	P*	-	-	Ρ	-	Ρ	M*	× _	-	-	-	
A. gramms Psylliodes chalcomera (Illiger)		P	_	_	D*	_	_	P	_	P	-	-	-	-	-	
P. cuprea (Koch)		-	-	-	P*	-	_	P		P	-	_	-	_	-	
P. dulcamarae (Koch)		-	-	-	P	-	-	P	-	P	-			-	-	
Macrocnema dulcamarae		Р	-	-	-	-	-	-	_	-	-	-	-	-	-	
P. luridipennis Kutschera		- D	Р	-	P*	Р	-	Р	-	Р	M*	-	M	-	M*	61
P. napi (Fabricius)		-	_	_	P*	_	_	P	-	P	_	-	-	1	-	
Cassida flaveola Thunberg		-	-	-	-	-	-	-	_	-	_	-	-	P	-	
ATTELABIDAE																
Rhynchites germanicus Herbst		-	-	-	-	-		Р	-	Р	M*	×	-	-	-	
R. minutus Hbst.		Ρ	-	-	Р	Ρ	-	-	-	-	-	-	-	-	-	
APIONIDAE																
Apion curtirostre Germar		Р	-	-	-	-	-	Р	-	Ρ	M*	-	-	Р	M*	r.
A. humile Germ.	•	-	Ρ	-	Ρ	$\sim$	-	-	-	-	-	-	-	÷.	-	
A. marchicum Herbst		-	Ρ	-	Ρ	-	-	Ρ	-	Ρ	M*	- 1	-	-	M*	
A. violaceum Kirby		Р	-	-	P*	-	-	P	-	P	M*	-	-	-	M*	
A. rutirostre (Fabricius)		-	P	-	P	-	-	P		P	-	-	- 1	-	-	
A radiolus (Marsham)		_	P	_	P	-	_	• P	_	P	_	-	_	-		
A. radiolum		-	P	-	-	-	-	-	-	-	_	_	-	2	_	
A. cruentatum Walton		-	-	-	P*	-	-	Р	-	Р	-	-	-	-	_	
A. frumentarium (Paykull)		-	-	-	-	-	-	Ρ		Ρ	M*	-	-	Ρ	-	
A. haematodes Kirb.		Р	-	-	Ρ	-	-	-	-	-	-	-	-	-	-	
A. atomarium Kirby		-	-	-	-	-	-	-	-	-	-	-	-	Ρ	-	
A. seniculus Kirby		- D	- P	-	P	-		- D	-	- D		-	M	-	-	
A immune Kirby		г _	-		P	_	_	P	_	P	IVI	-	IVI	F		
A. striatum (Marsham)		Р	-	_	P*	_	-	P		-	M*	_	-	_	M*	62
A. loti Kirby		-	-	-	P		-	P	-	P		-	-	-	-	
A. scutellare Kirby		-	-	-	P*	-	-	Ρ	-	Ρ	-	-	-	-	M*	
A. kirbii		P	-	-	-		-	-	-	-	-	-	-	-	2	
A. apricans Herost		Р	-	_	Р	-	-	Р	-	Ρ	NA*	-	-		-	
A. flavipes Pk.		P	_	_	_	_	_	P	_	P	-	2		- F	_	
A. filirostre Kirby		_	-	-	-	_	-	-		_	-	-	-	-	-	62
A. nigritarse Kirby		-	Ρ	-	Ρ	-	-	Ρ	-	Ρ	-	-		-	-	
A. ononicola Bach		-	-	-		-	-	Ρ	-	Ρ	-	-	-	-	-	
A. bohemani Th.		-	-	-	Р	-	-	-	-	-	-	-	-	-	-	
CURCULIONIDAE																
Otiorhynchus desertus Rosenhauer		-	-	-	-	-	-	-		-	-	-	-	-	-	63
O. higheus (Olivier)		P	-	-	P*	-	-	Р	-	Ρ	- M*	-	-	-		C I
O. ovatus (Linnaeus)		-	_	_	- ·	-	-	_	_	-	M*	_		_	IVI *	04
O. rugifrons (Gyllenhal)		P	_	_	P*	_	_	P	_	P	M*		M	12		
O. rugosostriatus (Goeze)		-	-	-	-	-	-	P	-	P	-	-	_	-	-	
O. scabrosus Marsh.			-		P*	-	-	-	-	-	-	-	-	-	-	
O. singularis (Linnaeus)		-	-	-	-	-	-	Ρ	-	Ρ	-	-	м	Ρ	M*	
O. picipes F.		-	-	-	P	-	-	-	-	-	-	-	-	-	-	
Caeponsis waltoni (Rohoman)		-	-		P P*	- D	-	P	-	P	M*	-	M	-	M*	
Trachyphloeus bifoyeolatus (Beck)		_	-		-	-	_	P	0	P	M*	_	M	-	M*	
T. scaber L.		_	_	-	P*	-	-	-	-	_	-	-	-	-	-	
T. laticollis Boheman		-	-	-	P*	Ρ	-	Ρ	-	Ρ	-	-	-	-	-	
[Polydrusus chrysomela (Olivier)]		-	-	-	-	-	-	-		-	-	-	-	-	-	65
P. confluens Stephens		-	-	-	-	-	-	-	-	-	-	-	-	-	-	65
P. chrysomeia Ol.		Р	-	-	Р	-	-	_	-	-	-	-	-	-	-	
Polydrosus chrysomela OI.		-	-	-	-	-	-	P	-	P	-	-	-	-	-	
Sciaphilus asperatus (Bonsdorff)		-	-	-	-	-	-	Р	-	Р	-	-	-	Ρ	-	
Strophosomus melanogrammus (Forster)		_	_	_	r -	_	_	-	_	Ξ	-	_	-	P		
S. coryli F.		_	_	_	_	P	_	_	_	_	_	_	_	-	141 -	
5. nebulosus Stephens		-	-	-	-	-	-	-	-	-	M*	-	-	P	M*	
S. squamulatus		Ρ	-	-	-	-	-	-	-	-	-	-	-	-	-	
S. retusus Marsh.		-	-	-	P*	-	_	Ρ	-	Ρ	-	-	-	-	-	
R geminatus E		-	-	-	-	-	-	-	-	-	-	-	-	Ρ	-	
Cneorrhinus plagiatus Schall		_	_	_	r	_	-	P	-	P	-	-	-	-	-	
station programa outrain.				1000	-		_		_		_		_	_	_	

			TVW	FS	FAW	LHN	M&D	WSB	KGB	GDH	JEC-	CMF	KGV	CMK	RCW	drw	
Barynotus obscurus (Fabricius)			-	-	-	1	_	-	-	-	4	-	-	-	Р		
[Sitona ambiguus Gyllenhal]			-	-	-	-	-	-	-	-	-	-	-		-	-	66
S. campricus Stephens S. bispidulus (Fabricius)			-	-	_	P*	_	-	P	-	P	-	-		P		67
S. hispidula			P	_	-	-	_	-	-	_	-	_	_	_	г —	IVI -	07
S. lepidus Gyllenhal			-	-	-	-		-	-	-	-	M*	-	-	-	-	
S. canina			P	-	-	-		-	-	-	-	-		-	-	-	
S. flavescens Marsh.				-	-	P*	-	-	Ρ	-	Ρ	-	-		-	-	67
S. lineellus (Bonsdorff)			-	-	-	-	-	-	Ρ	-	Ρ	M*	-		P	-	66
Sitona ambiguus Gyll				_	_	P .	_	-			_	-	-	-	P	-	
S. puncticollis Stephens			P	_		P	-	-	P	2	P	_	_	_	-	-	67
S. regensteinensis (Herbst)			-	-	-	P*	-	-	P	-	P	-	-	-	Ρ	M*	67
S. striatellus Gyllenhal			-	-	-	-	-	-	-	-	-	M*	-	-	-	M*	
S. tibialis Hbst.			-	-	-	P*	-	-	P		P			-	-	-	67
S. sulcitrons (Inunderg)			P	-	-	P	_	-	Р	-	Ρ	-	-	-	-	-	67
S. suturalis Stephens			- -	-	_	P	_	_	P	_	P	2	_	_	100	-	67
Hypera arator (Linnaeus)			-	-	-	-		-	-	-	-	M*	-	-	-	-	07
H. polygoni L.			-	-	-	P*	-	-	-	-	-	-	-		-	-	
Phytonomus arator L.			-	-	-	-	-	-	Ρ	-	Ρ	-	-		-	-	
H. austriaca (Schrank)			-	-	-	-	-	-	-	-	-	M*	-	-	-	-	
Phytonomus punctatus E			Р	-	-	P	-	-	-	-	- D	-	-	- 11	-	-	
H nigrirostris (Fabricius)			0	-	-	_	_	-	r	_	r	_	_	-	-	M*	
H. postica (Gyllenhal)				-	-	-	-	-	-	-	-	-	-	-	-	-	
H. variabilis Hbst.				-		P	-	-	-	-	-	-	-	-	-	-	
Phytonomus variabilis Hbst.			-	-	-	-	-	-	Ρ	-	Ρ	-	-	-	-		
H. rumicis (Linnaeus)			-	-	-	-	Ρ	-	-	Ρ	-	-	-	-	-	-	
H. venusta (Fabricius)				-	-	-	-	-	-	-		M*	-	-	-	-	
Phytonomus trilineatus Marsh.			_		_	5	_	_	P	_	P	_	_	2	2	- <u>-</u>	
Cleopus pulchellus (Herbst)			-	-	_	-		-	_	-	_	-	-			12.1	
Cionus pulchellus Hbst.			-	-		P	-	-	Ρ	-	Ρ	-	-	-		-	
Leiosoma deflexum (Panzer)			-	-	-	-	-		-	-		-	-	-	-	-	
Liosoma ovatulum Clair.			-	-	-	Ρ	-	-	-	-	-	-	-	-	-	-	
L. deflexum Pz.			-		-	-	-	-	P	-	P	-	-	-	-		
Caulotrupodes aeneopiceus (Bohema	n)		_	_	_	- F	2	-	r	_	r		-	M	-	M*	
Caulotrupis aeneopiceus Boh.	,			-	-	P	-	-	P	-	P	-	_	-	P	-	
Acalles ptinoides (Marsham)			-	-	-	P	-	-	P	-	P	-	-	-	-	-	
A. turbatus Boheman			-	-	-	Ρ	-	-	Ρ	-	Ρ	-	-	-	-	-	
Bagous limosus (Gyllenhal)			-	-	-	P*	-	-	P	-	P	-	-	-	-	M*	
Micrelus ericae (Gyllenhal)			-	-	-	-	-	-	Ρ	-	Ρ	-	-	-	-	-	
Ceuthorrhynchus ericae Gyll			Р	-	2	P		_	-	-	-	_	-	-	-	-	
Cidnorrhinus guadrimaculatus (Linna	eus)		-	-	2	-	_		P	_	P	_	_	M	P	M*	
Ceutorhynchus didymus	/		P	-		-		-	-	-	-	-	-	-	-	-	
Coeliodes didymus			-	Ρ	-	-	-	-			-	-	-	-			
C. quadrimaculatus L.			-	-	-	P	-		-	-	-	-	-	-	-	-	
Ceuthorhynchidius dawsoni (Brisout)			-	-	-	P*	-	-	Ρ	-	Ρ	-	-	-	-	100	68
C. troglodytes (Fabricius)			-	-	-	Ρ	-	-	Ρ	-	Ρ	-	-	-	P	-	68
Nedyus troglodites			Ρ	-	-	-		-	-	-	-	-	-	-	-	-	
Ceutorbyochus assimilis (Paykull)			-	r	2	p*	_	-	P	_	P	M*	_		-	-	60
Nedvus assimilis			P			-	_	-	-	_	_	-	-	-	-	-	03
Ceuthorhynchus assimilis			-	Ρ	-	-	-	-		-	-	-	-	-	-	-	
C. contractus (Marsham)			-			Ρ	Ρ	-	P	-	P	M*	-	M	Ρ	-	69
Nedyus contractus (var. ?)			Ρ	-	-	-	-	-	-	-	-		-	-	-	-	
Ceuthorhynchus contractus				P	-	-	-	-	-	-	-			-	-	-	
C. contractus v. / pallipes Crotch			-	٢	-		- D	-	-	-	- D	-	-	-	-	-	60
C ervsimi (Eabricius)			2	_	_	P		-	P	_	P	_	_	_	P	-	69
Nedvus ervsimi			P	-	-	-	-	-	-	-	_	-			-	_	05
C. pollinarius (Forster)			-	-	-	P	-	-	Ρ	-	Ρ	-	-	-	P	M*	69
C. quadridens (Panzer)			-	-	-	P*	-	-	P	-	Ρ	-	-		Ρ	M*	69
Ceuthorhynchus quadridens			-	Ρ	-	-	-			-	-	-	-			-	
Rhinoncus castor (Fabricius)			-	-	-	-	Р	-	-	-	-	-	-	-	-	-	
R. pericarplus (Linnaeus)			0	-	-	Р	-	_	Р	-	P	-	-	-		M.+	
Phytobius quadrituberculatus (Fabrici	us)		-	-	2	_	_	-	-	_	_	M*	2	-	2	-	
Orobitis cyaneus (Linnaeus)	43)		P		-	P	-	_	P	_	Р	-	-	-	-	-	
Anthonomus brunnipennis Curtis			-	-	-	-	-	-	-	-	-	-	-	-	-	-	
A. comari Crotch			-	-	-	P*	-	-	-	-		-	-	-	-	-	
A. rubi v. comari Crotch			-	-	-	-	-	-	Ρ	-	P	-	-	-	<b>T</b> 11	-	
a rupi (Berbst)			- D		-	-	-		-	-	-	-	-	-	-	-	
A ator			-	P	-	P	_	-	P	-	P	-	-	1	5	_	
A. ater Tychius lineatulus Stephene			-	-	_	-	_		_	_	-	_	_	2	2	-	
A. ater Tychius lineatulus Stephens I. stephensi Gyllenhal			_								100				1000	1000	
A. ater Tychius lineatulus Stephens T. stephensi Gyllenhal T. tomentosus Hbst.			P	-	-	P	-	-	P	-	P		-	-	-		
A. ater Tychius lineatulus Stephens T. stephensi Gyllenhal T. tomentosus Hbst. Miccotrogus picirostris (Fabricius)			P	P	-	P P	-	-	P -	-	P -	-	-	-	-	*	

	TVW	FS	FAW	ΓΗN	M&D	WSB	KGB	GDHC	JEC-T	CMFVI	KGVS	CMK-	RCW	MHDB	
Sibinia primita (Herbst)	-	-	-	P*	_	-	-	-	-	-	_	-	Р	-	
Sibynes primitus	-	P	-	-		-	-	-	-	-	-	-	-	-	
Sibinia signata Gyll.	-	-	-	-	-	-	P	-	P	-	-	-		-	
S. sodalis Germar	-		-	-	P	-	-	-	-	-	-	-	-	-	
Medcinus pyraster (Herbst)	-		-	P*	-	-	Ρ	-	Ρ	-		_	P		
Gymnetron beccabungae (Linnaeus)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	70
G. veronicae (Germar)	-	-	-	-	-	-	-	-	-		-	-	-	-	70
G. beccabungae L.	-	-	-	P	-	-	-	-	-	-	-		-	-	
G. nigrinum Walton	-		-	-	-	-	P	-	Ρ		-		-	-	
Rhynchaenus fagi (Linnaeus)	-	-	-	-		-	-	-	-	M*	-	-	-	-	
SCOLYTIDAE															
Hylastinus obscurus (Marsham)		-		D*			P		P		1.1		P	1	

#### NOTES

1 Wollaston (1845) records that a friend of his had been offered three examples of *Calosoma sycophanta* L. having witnessed their capture whilst on a visit to Lundy some years previously. The friend apparently declined from purchasing the specimens and so they were duly released. Wollaston's friend was not an entomologist and although he "had a sufficient knowledge of the science to distinguish some of our rarer and larger species" he was, I feel certain, offered specimens of *Cetonia aurata* L. The Rose Chafer which is common on Lundy at certain times of the year.

2 Campbell-Taylor (1946) indicates that Carabus monilis F. has been found on Lundy. This species does not appear in any of the lists on which his was based neither has it been collected there since. It's inclusion by Campbell-Taylor is treated here as one of several mistakes that he seems to have made when compiling his list and as such is deleted.

3 There appears to be no reason for Blair's exclusion of *Notiophilus aquaticus* L. from his Lundy list (1931). It is possible that he regarded Wollaston's record, published without a species author, as being *aquaticus* Fourcroy not L. and therefore a synonym of *N. biguttatus* F. (Csiki 1927) a species that he does record from the island. I have been able to examine a single specimen of *aquaticus* L. collected by Joy during his second visit and so can confirm that it has been found on Lundy. Joy having recorded this species from Wollaston (1847) in his first list (1906) would not have included his own record in a later list.

4 Notiophilus palustris Duft. was a misidentification by Joy listed in 1907 and corrected, by himself, to N. hypocrita Spaeth. (=germinyi Fauvel) in a later note (1908).

5 Joy apparently did not recognise that Wollaston had previously recorded Notiophilus biguttatus F. by another name, N. striatus Waterhouse (1833). Blair (1931) acknowledges both records.

6 The Mitford record refers to an unnamed "black var" listed as new to Lundy by the collector (1913).

7 Wollaston (1847) records "Trechus fulvus" from Lundy. According to Stephens (1828) this is a Marsham species originally placed in the genus Carabus but being a preoccupied name it became invalid. The species immediately following fulvus in Stephens (1828) is T. pallidus Steph., Stephens informs us in the text here that pallidus is "probably a mere variety" of fulvus. Further, he states that pallidus "appears to be the Tr. verbasci of Sturm" (Duftschmidt). Joy records Wollaston's record as T. lapidosus Dawson, which is a synonym of T. fulvus Dejean not Marsham the name used by Blair (1931) who attributes its capture to both Wollaston and Joy. Subsequently T. fulvus Dej. also appears in Campbell-Taylor (1946).

Dawson (1854) moves fulvus Marsh. not Dej. to Bradycellus placing, amongst other names, the following as synonyms; Trechus fulvus Steph. (Marsh.) and T. pallidus Steph., fulvus Marsh. as explained above is now an invalid name and pallidus Steph. is a synonym of Bradycellus verbasci (Duft.).

The species at present known as Trechus fulvus Dej, was not known to British entomology until it was described under the name Blemus lapidosus by Dawson (1849), later (1854) placed by him in Trechus with Blemus pallidus Steph. (Sturm not Steph.) listed as a synonym. Blemus pallidus Sturm is at present placed as a synonym of Trechus rubens (F.), and lapidosus Daws. is of course now a synonym of fulvus Dej.

Considering the above and because of the known lack of contact between British and Continental coleopterists before the 1850's (Schaum 1849) Wollaston's record (1847) of *Trechus fulvus* from Lundy can safely be regarded as *Bradycellus verbasci* (Duft.) whilst *Trechus fulvus* Dej, not having been authenticly recorded from Lundy to date, is here removed from the list.

Ecologically there is very little room on Lundy for T. fulvus Dej, there being only two small beaches offering suitable habitat. Joy (1907) records B. verbasci Duft. as new to Lundy as a result of his collecting there during the previous year. I too have taken this species on Lundy, it is generally a much more common carabid than *fulvus* requiring a less specialised habitat.

8 Campbell-Taylor (1946) lists Panagaeus bipustulatus F, immediately followed by Badister bipustulatus F. These names appear in the same order in Blair (1931), he correctly records Badister as having been found on Lundy, also correctly, he does not mark Panagaeus as occurring there. Campbell-Taylor in copying Blair's list is clearly at error having recorded Panagaeus on Lundy instead of Badister. The latter is reinstated to the list and Panagaeus removed.

9 Joy's specimens of *Harpalus rufitarsis* (Duft.) were in fact collected on his second visit to Lundy. His listing of *Harpalus honestus* Duft. in his first list referred to Wollaston's annulicornis record not to his own material which has recently been found in his collection correctly labelled *rufitarsis*. The name *honestus*, although now of specific status and correctly distinguishing a rare chalk-land species, has been used in the past instead of *rufitarsis* of which it was once considered a synonym, (see Allen 1964). Joy therefore did not record *rufitarsis* on his second list presumably believing that his first list, recording *honestus*, covered the same species. *H. honestus* is here deleted.

10 Species author given as Dejean by Joy (1906, 1907) probably after Fowler (1887).

11 itarpalus (=Ophonus) puncticollis (Payk.) was recorded from Lundy by Wollaston (1847). This species has not been included in subsequent lists (other than Chanter's (1871) copy of Wollaston) neither, as far as I know, has it been found there since. H. puncticollis is regarded as rare and probably always occurring on chalk or limestone (Lindroth 1974), it is therefore deleted from the present list.

12 An examination of Joy's collection failed to produce any specimens from Lundy standing as *Harpalus (=Ophonus) rufibarbis* F. However, a single example of what today is *rufibarbis* was found standing as *brevicollis* Dej. and labelled 'Lundy 8/05'. Undoubtedly this was the specimen referred to in Joy (1906) as *rufibarbis*, later moved to *brevicollis* Dej. in agreement with Sharp's analysis of the British Ophonus (Sharp 1912). The name *brevicollis* thus appears on the species list here as an unpublished record.

Welch (1969) records having found "H. (=Ophonus) schaubergerianus Puel (=rufibarbis F.)" under a haystack in High Street, Lundy in July 1961. Dr. Welch has kindly lent me this single specimen which I have been able to compare with specimens identified by Lindroth during the course of his work on the recent handbook to the British Carabidae (Lindroth 1974). This specimen, a female, also proves to be the true *rufibarbis* (Fabricus).

13 Bradycellus distinctus (Dej.) has been included on lists of Lundy Coleoptera since Joy's record of 1907. However, as is generally known, in 1912 he described the species B. sharpi from the beetle, up to then, wrongly identified as distinctus of Dejean by Fowler and British authors. Joy's own record of distinctus from Lundy must therefore be regarded as being sharpi Joy (=distinctus Fowler not Dej.). As no authentic records of the very local true distinctus (Dej.) exist, as far as I know for Lundy, it is deleted from the present list.

14 Smith (1869) recorded Anchomenus moestus from Lundy. When Joy (1906) compiled his list moestus (Duft.) was considered to be only a variety of Anchomenus --Agonum) viduus (Panzer) and as such was recorded by Joy as Anchomenus viduus Pz. Blair (1931) records both Agonum viduum Pz. attributing the record to Joy and A. viduum v. moestum Dufts. attributing the record to Smith. There seems little doubt that these two records stem from Smith's original one. Now that viduum and moestum are considered as distinct species and as no sub-sequent records of either exist as far as I know, I propose to retain moestum and to delete viduum from the present list.

15 Author given as "Germ." by Blair (1931) and Campbell-Taylor (1946).

16 Hydroporus rufifrons sensu Stephens (1828) not (Duftschmid 1805) is now known to be H. gyllenhali Schiödte (Balfour-Browne 1940). Wollaston's record of rufifrons is therefore accepted here as referring to Schiödte's species. Joy, Blair and Campbell-Taylor list rufifrons (Duft.) as a good species, however, they were simply accepting Wollaston's earlier record. H. rufifrons (Duft.) (=rufifrons (Müller)) is here deleted from the Lundy list. Joy himself found gyllenhali on Lundy and so records it as an addition in 1906 but Blair (1931) interprets this as being piecus Stephens. Presumably he followed the Coleopterorum Catalogus (Berlin 1920) in which gyllenhali Schiödte 1841 is given as a synonym of piceus Stephens 1828. He was, however, misled as the true piceus Steph. has since been re-established as a synonym of rufifrons (Müller) and not of gyllenhali Schiödte.

17 Wollaston (1847) recorded Hydroporus planus from Lundy. Reference to contemporary literature, Stephens (1828 and 1839) in particular, shows that the true identity of this Fabrician species was obviously not correctly known to British authors at that time. Whatever Wollaston had, it seems certain that he could not have correctly identified it as the true planus (F.). Having been unable to examine Wollaston's specimen of 'planus' I have followed Waterhouse (1858) who considers planus sensus Steph. in part to be H. pubescens (GylL). Joy (1906) when recording Wollaston's records includes planus Fabricius and as such the name has appeared on subsequent lists unaccompanied by any further records of its capture on Lundy. A single correctly identified specimen of pubescens collected on Lundy by Joy during his second visit has recently been found in his collection. He did not include this record in his second list indicating that the species had previously been found on Lundy and had thus been included in his first list, this could only have been as planus. Rather than include this species in yet another list on to not be very common on the island.

18 Since Wollaston recorded Agabus (=Colymbetes) chalconotus (sic) (Panzer) from Lundy before A. melanocomis Zimmerman was known (it now has full specific status) his record is here treated with some question. The distribution of (var.) melanocomis is featured separately from that of chalconatus by F. Balfour-Browne (1950) who states that it is far more widely distributed in Britain than the "type form" chalconatus. The latter apparently occurring no further south west than Gloucester. However, both are considered to have a distribution of the constribution of the considered to have a distribution that covers the southern half of England. Miss von Hayek and myself have both found melanocomis on Lundy but in common with other recent collectors have not taken chalconatus the hist only by record from earlier lists compiled before melanocomis was known.

Wollaston's wrong spelling of chalconatus almost certainly stems from Stephens (1829) (F. Balfour-Browne 1935), the mistake has been carried through subsequent lists.

19 Gyrinus substriatus Stephens is now definitely considered to be a distinct species (Omer-Cooper 1931), Brink 1940 and Kloet and Hincks, in print) and is known to be the beetle hitherto referred to as G. natator (L.) (Scop. in Joy 1907). The latter is an extremely rare species seldom found in the British Isles. My own Gyrinus from Lundy and a single specimen collected there by Joy in 1906 have all, upon dissection, proved to be substriatus. I am therefore recording this species in palce of natator which is here deleted from the Lundy list.

20 Listing the species of *Helophorus* recorded from any area over the last 130 years with accuracy is a difficult task, past confused usage of names having rendered previous lists unreliable. The present list is offered with the minimum of explanation as being the most likely interpretation of the names used to date as records for Lundy.

Originally Wollaston recorded three species of *Helephorus* (sic) from Lundy, grandiz, granularis and griseus Joy (1906) records Wollaston's species but all by different names, aquaticus L., aeneipennis Th. and brevipalpis Bed., he does not add further species by his own collecting. Blair (1931) compiled his list of Lundy *Helophorus* solely from Wollaston and Joy but unfortunately he records four species in place of the original three, aquaticus L. and aeneipennis Th. taken from Joy and Wollaston, brevipalpis Bed. from Joy and affinis Marsh. from Wollaston.

H. grandis Illiger stands as a good species, early authors mistakenly considered it to be the same species as aquaticus (Linnaeus), the latter being accepted as the senior name by Joy (probably after Fowler 1887) and later by Blair.

Joy, presumably again using Fowler, attributes Wollaston's granularis to Gyllenhal and accordingly updates the name to aenei, shows Thoms. Blair, as we can see, accepted this interpretation. However, aeneipennis of British authors not Thoms. is now known to be H. flavitoes (Fabricius). Reference to Waterhouse (1858) shows that the beetle then known as (granularis Gyll., Steph. etc. was also the same as flav, pes (F.). I have found this species to be common in suitable habitats all over Lundy.

Joy, perhaps yet again using Fowler's nomenclature, interprets Wollaston's griseus as being brevipalpis Bedel. Blair records this name only as appearing on Joy's list. H. griseus as recorded by Wollaston was most probably brevipalpis, although it could have been minutus F. or granularis (L.). Opinion is against accepting the record as the true griseus of Herbst. I have found brevipalpis myself on Lundy.

As noted above Blair records a fourth species. It would seem that he did not consider Joy to have taken the name brevipalpis from Wollaston's griseus and so interprets the original record of griseus himself as affinis Marsh. (again probably after Fowler 1887) and records it as occurring only on Wollaston's list. In the present list affinis is recorded with griseus from Wollaston under brevipalpis.

Because of these conclusions I propose to delete from the Lundy list the following species, *H. aquaticus* (L.), *H. griseus* Herbst (*=affinis* (Marsham) not Thunberg) and *H. obscurus* Mulsant (*=aeneipennis* Thomson). Synonyms from Kloet and Hincks (in print).

21 A single specimen of Cercyon standing as "flavipes" in the Joy collection has recently been identified as C. analis (Payk.). It was collected in 1905 but the record, flavipes (F.), did not appear in print until 1907 (Joy's second list). If Blair (1931) placed the record of haemorrhoidalis (F.) from Joy's list as impressus (Sturm), see note 22., he must then have interpreted Joy's record of flavipes (F.) as being haemorrhoidalis (F.), the capture of which he attributes solely to Joy. It seems unlikely that Joy had intended to record flavipes (Thunberg) not (F.) (ranalis (Payk.)) since he had already recorded analis (specimens not found in Joy coll.) as new to Lundy in his first list (1906). What-were the explanation haemorrhoidalis is retained by Dr. Welch's and my own records and analis by the single Joy specime nabove mentioned.

22 Wollaston's record of *Cercyon piceum* is the only one of the five *Cercyon* he lists that Joy could have interpreted as being *C. haemor-hoidalis* (F.). He presumably came to this conclusion through Stephens (1829, 1839) and Waterhouse (1858) following the latters synonomy of *piceum* Marsh. and Steph. under *haemorrhoidale* Fab. Gyll., etc. Blair was obviously aquainted with the true identity of *piceum* (see Knish 1924) and accordingly lists *C. impressus* (Sturm) attributing this species to both Wollaston's and Joy's lists. *impressus* is now a junior synonym of *C. atomarius* (F.).

23 In Blair (1931) and Campbell-Taylor (1946) Cercyon convexiusculus Steph., C. granarius Er. and C. tristis (Illiger) appear consecutively. Blair records the latter two as having previously been listed from Lundy and convexiusculus as not having occurred there. Campbell-Taylor, in copying Blair's list, marks the first two as being found on the island and tristis as not. A further complication, dealt with in note 24., is the mininterpretation of one of Wollaston's species as tristis (Illiger) by Blair. Since the inclusion of convexiusculus by Campbell-Taylor was an error it is here removed from the list.

24 Wollaston records two Cercyon in his second list (1847), C. bolitophagum (sic) and C. stercorarium, both are Marsham names. Accepting that Wollaston used Stephens (1829 and 1832) rather than Marsham's very short Latin descriptions of 1802, reference to Waterhouse (1858), Knisch (1924) etc., discloses that he probably had only the one species, Megasternum obscurum (Marsham) (=boletophagum (of authors not Marsh. and stercorarium, Marsh. and Steph.). Joy presumably realised this and accordingly records only Megasternum boletophagum (of authors not Marsh. ads stercorarium, Marsh.). Blair (1931) includes this name acknowledging its appearance in both Wollaston's and Joy's works, he also includes a further species, Cercyon tristis (110), attributing the record solely to Wollaston. It would seem that Blair must have known the identity of the true boletophagum of Marsham, the type of which has proved to be C. tristis (1. Balfour-Browne 1939), a fact that did not reach publication until eight years after Blair's list. As suggested above it is far more likely that Wollastons record of Distophagum 'referred to Megasternum rather than the very local C. tristis (=convexium Steph. and convexior Marsh. of Stephens 1829) I have therefore deleted the latter and followed Joy in retaining the single name M. obscurum in place of Wollaston's original two names. Campbell-Taylor also excludes tristis.

25 Laccobius striatulus (F.) (-nigriceps Thoms.) was included by Blair (1931) as having been found on Lundy by Joy. But since Joy did not in fact record this species it is here deleted from the list.

26 Joy (1906) records Helochares punctatus Sharp as new to Lundy. In 1907 he further records as new H. lividus (Forst.) but deletes this name the following year, presumably the two subsequently proved to be the same species. Blair (1931) lists lividus (Forst.) and griseus (F.) as good species placing Joy's punctatus record as griseus. I have been able to examine one of Joy's original Helochares from Lundy collected in 1905. It is a male H. obscurus (Muller) [=griseus (F.)), the same species that Miss von Hayek and myself found to be very common on the island. As far as I know there are no authenticated records of H. lividus (Forst.) [=punctatus Sharp) from Lundy.

27 Wollaston's first list contains the record Laccobius globosus, if this referred to the globosus of Curtis (-Berosus luridus (L.) and accepted as such by Joy with a "?) then Wollaston was at fault in placing it in the genus Laccobius rather than Berosus. Unfortunately Heer named a further species globosus within Laccobius in 1841 which is now a junior synonym of L. minutus ((L) but as Wollaston later records this as new to Lundy in his second list it would indicate that his earlier record of globosus did refer to the species now known as Berosus luridus and not to L. minutus. Blair attributes the record of luridus solely to Joy apparently not recognising this species on Wollaston's list.

28 Wollaston's second list (1847) includes the record "Leiodes rufa?". rufa is a manuscript name and is listed as such in Stephens Systematic Catalogue (1829) where it is placed as a synonym of L. badia ((Sturm.) which in turn is marked to indicate the possibility of it being only a variety of L. brunnea (Sturm.), the preceding species. As far as I have been able to ascertain the name rufa does not again appear in print. A single specimem bearing the label "rufa Ste" which has been found in the Stephens Collection at the British Museum (Natural History) proves the origin of the name. The true identity of this specimen has not yet been established but even if it were, it would not necessarily prove the identity of the species that Wollaston queries in his list. The name remains on the present list as an unidentified record and is not included in the total of species given in the introduction.

29 'Necrophorus vestigator' of Wollaston's list (1847) almost certainly the species known today as Nicrophorus investigator Zetterstedt. Stephens' (1830 and 1839) description of vestigator clearly alludes to investigator and his description of the non British species N. sepultor Gyll. = vestigator Herschel. Therefore if Wollaston had collected the true vestigator he would have recorded it by the name sepultor which was then thought to be a British sliphid. N. vestigator is here removed from the list and Wollaston's record included under investigator which I have found to be very common on Lundy.

30 Stenichnus (Scydmaenus) pusillus (Muller) was recorded by Mitford and Donisthorpe (1913) from Lundy. As pusillus sensu Donisthorpe and Brit. auct. partim has proved to be S. scutellaris (Muller & Kunze) and only very rarely pusillus sensu stricto 1 propose to delete the latter from the list and to include Mitford's record under scutellaris which was first found on the island by Joy.

31 Joy (1907) records an unidentified species as 'Scydmaenus sp.?'. Since this was probably Scydmaenus sensu Fowler 1888 not Latreille 1802, which would now place it as Stenichnus sp. (Riote and Hincks, in print) and in the absence of any other record of its occurrence on Lundy Scydmaenus is here removed from the list.

32 It seems probable that Joy (1906) has in error marked Anotylus (=Oxytelus) tetracarinatus (Block) as new to Lundy rather than A. (=Oxytelus) complanatus (Er.). He must well have known that the 'O. depressus' of Wollaston's list and of other early authors was tetracarinatus. I have seen two specimens of complanatus taken on Lundy by Joy, both were collected in the April following the publication of his first list! Neither of the above species is attributed to Wollaston's record by Blair (1931).

33 Euaesthetus Gravenhorst 1806. Joy, Blair and Campbell-Taylor use the generic spelling Evaesthetus after Mannerheim 1844.

34 A recent examination of two specimens collected by Joy in 1906 and standing in his collection as *Philonthus micans* (Grav.) has shown them to be *P. micantoides* Benick & Lohse and not as originally identified. *P. micans* is therefore deleted from the list.

35 Wollaston's record of *Staphylinus aeneocephalus'* was interpreted by Joy as *Ocypus cupreus* Rossi. A conclusion he no doubt arrived at by regarding Wollaston as having used Stephens (1832) where Paykull not Degeer is cited as the author of *aeneocephalus*. Waterhouse (1858) lists *aeneocephalus* Steph. (Payk.) as being *cupreus* Rossi. Blair when compiling his list attributes authorship of *aeneocephalus* to DeGeer not Paykull (probably he was misled by Fowler (1888) who gives DeGeer's species as a synonym of *cupreus*]. Blair therefore wrongly places *aeneocephalus* DeGeer on the list attributing its record to Wollaston and Joy. Joy, however, must be considered as correct and accordingly the present list agrees with him in recording *Staphylinus (=Ocypus) cupreus*. The true *aeneocephalus* of DeGeer was later recorded from Lundy by Hale Carpenter in 1943 and so the name does remain on the list.

36 There can be little doubt that Wollaston (1847) was recording the species known today as Quedius semiobscurus Marsham (=rufipes Grav.) when he added the name 'Raphirus semiobscurus' to his list (see Stephens 1832 and 1839) and not as Blair (1931) records (Quedius semiaeneus Stephens (=semiobscurus Erichson not Marsh.). Joy correctly placed Wollaston's original record together with his own as Q. rufipes Grav., Blair subsequently attributed the record of rufipes only to Joy. Q. semiaeneus was not authenticly recorded from the island until Joy found it there in 1905 (1908 list).

37 A single specimen standing as Quedius boops (Gr.) in the Joy collection is a female and consequently it has not been possible to verify its identity. Although Blair lists both Wollaston and Joy as having found boops on Lundy they could in fact have had any of about five closely alike species. MacKechnie-Jarvis and myself, however, record the true boops Gravenhorst. Campbell-Taylor has inexplicably failed to mark boops as occurring on Lundy.

38 I have agreed with Joy and Blair in taking Wollaston's record of 'Tachyponus merdarius' to be that of Panzer (as in Stephens 1832) (=T. solutus Erichson) and not as merdarius Marsham (=T. chrysomelinus Linnaeus). During a recent study of

39 During a recent study of the genus Gnypeta S.A. Williams found amongst Joy's series of G. carbonaria (Mann.) from Lundy a single specimen of G. nubrior Tottenham.

40 I have here followed Strand and Vik (1964) (see also Welch, 1969) in which Atheta zosterae (Th.) and A. nigra (Kr.) are treated as good species. Although 1 have not seen Joy's specimens of A. (-Homalota) nigra 1 have included his record here as the true nigra rather than as zosterae as did Blair. C. Welch produced the first reliable records of zosterae which he has found on several occasions on Lundy, he also collected nigra there in 1967.

41: A single example of Atheta ravilla (Erichson) was discovered in the Joy collection during the preparation of this work.

42 The two specimens recorded by Joy as *Homalota exilis* Er. later formed part of the syntypic series of his new species *Meotica exiliformis* (Joy 1915) which has, however, since been placed as a synonym of the original species *Meotica (=Homalota) exilis*.

43 Author given as 'Sahl.' by Joy (1907).

44 Wollaston (1845) records 'Polystoma obscurella' from Lundy presumably following Stephens (1839) in which the specific name is attributed to Gravenhorst (1806). Joy (1906) recording Wollaston's lists has, in attempting to bring the nomenclature up to date, recorded Aleochara grisea Kraatz in place of the original record. Joy is clearly at error here apparently having interpreted Wollaston's obscurella as being that of Thomson (1861) (=grisea Kraatz) which clearly could not have been the species referred to by the original recorder in 1845. Blair (1931) and Campbell-Taylor (1946) each subsequently recorded grisea (the former attributing its capture only to Joy), they do not mark the original name as a species that occurs on Lundy. Aleochara (=Polystoma) obscurella of Gravenhorst is of course a good species and as such is here restored to the islands list whilst prisea Kraatz is deleted.

45 Joy (1907) recorded both Aphodius luridus (F.), erroneously giving the author as Linnaeus, and its variety nigripes (F.). Blair has apparently taken the varietle name to be that of Stephens and accordingly records it as var. nigripes of depressus (Kugelann).

46 The only record of *Dascillus cervinus* (L.) on Lundy appeared without details in the 2nd Annual Report of the Lundy Field Society (1948). Welch (1969) records this note in the introduction to his own list.

47 Blair (1931) accepts Wollaston's record of 'Parnus (=Dryops) prolefericornis' (sic) as the true species of Fabricius (1792) and accordingly records Dryops auriculatus (Geoff.) (in Fourcroy) as the senior synonym. Since prolifericornis sensu auct. Brit. not Fabricius is now known to be D. luridus Erichson I propose to delete the name auriculatus from the Lundy list and to include Wollaston's record as luridus. Miss C.M.F. von Hayek and myself found only luridus on Lundy where it is quite common in suitable habitats on the southern half of the island.

48 Cantharis decipiens Baudi is here removed from the Lundy list. Its appearance, first by the name Telephorus haemorrhoidalis F. in Joy (1906) and later as Metacantharis haemorrhoidalis F. in Blair (1931) and Campbell-Taylor (1946), can be explained as follows. Wollaston (1845) records consecutively 'Aplotarsus haemorrhoidalis and 'Telephorus testaceus' in the order given here. Joy (1906) in republishing Wollaston's records with his own of 1905 established an error that has since remained uncorrected. Aplotarsus /=Athous) haemorrhoidalis is not included by Joy in his first list, he does later find this species on Lundy in 1906 and records it as new to the island in 1907. Having omitted Aplotarsus Joy continues his list by placing Telephorus haemorrhoidalis '-.' followed by 'Magonycha testaceus', he records both as having been taken before he himself collected on Lundy. Clearly Joy has created an admixture of names from Wollaston's list, taking the generic name of the second of the above mentioned pair of original records and the specific name of the first. He then again takes the second generic name, but this time bring the nomenclatur up to date by changing Telephorus to Rhagonycha and thus correctly. Records R. testacea. Blair also correctly records this species but obviously not realising what had occurred records Metacantharis (=Telephorus haemorrhoidalis F. and attributed the record solely to Joy. Blair does acknowledge Wollaston's record of Athous (=Aplotarsus) haemorrhoidalis F. as well as that of Joy (1907).

The occurrence of R. testacea is questioned on the present list as it was on Wollaston's for as far as I know no verified records of this species exist for Lundy.

49 Mitford and Donisthorpe (1913) record *Telephorus bicolour* F. as new to Lundy. However, *bicolor* of British authros not Fabricius is now known to have been a mixture of *Cantharis cryptica* Ashe and *C. pallida* Goeze. Although the relevant Lundy material has not been found other specimens standing as *bicolor* F. in the Donisthorpe collection, now at the British Museum (Natural History) London, have all proved to be cryptica. I am therefore placing the Lundy record as this rather than as the much scarcer species *pallida*.

50 Cantharis rufa L. was originally recorded from Lundy in the 2nd Annual Report of the Lundy Field Society (1948) as C. lituratus Fall. Welch (1969) records this note but no further specimens have been found as far as I know.

51 Blair (1931), apparently by mistake, listed Joy's original record of *Ptinus fur* (L.) as *P. sexpunctatus* Panzer. Campbell-Taylor (1946) failed to correct the error. *sexpunctatus* is now deleted from the list and *fur* reinstated.

52 Brachypterus urticae (Fabricius) was originally recorded from Lundy by Wollaston (1847). The name he used was 'Cateretes pyrrhopus', a Marsham species taken no doubt from Stephens (1830 and 1839). Although this name apparently does not again appear in print after Stephens, reference to specimens labelled as such in the Stephens collection at the British Museum (Natural History) London has shown them to be B. urticae F.

The lack of an asterisk against *B. urticae in Joy's* list of 1906 denotes that he regarded it as having previously been found on the island, that is by Smith or Wollaston. Clearly Joy has here misinterpreted Wollaston's record of 'Meligethes urticae' (Stephens 1830 and 1839) for this name refers to Meligethes aeneus (Fabricius) (Col. Cat. 1913) and not as Joy presumably thought *B. urticae. M. aeneus* is not included at all in Joy's first list (1906) but later (1907) he records it as new to Lundy. *B. urticae* appears in Stephens as Cateretes urticae F. (Grouvelle 1913) as well as supposedly by the name C. pyrrhopus.

Joy was therefore correct in listing *B. urticae* as having previously been collected on Lundy but almost certainly by incorrect interpretation. He probably did not trace the identity of *pyrrhopus*, the name does not even appear in Waterhouse (1858), and so left it out of his list. At the same time he mistakenly recorded Wollaston's original name 'Meligethes urticae' as Brachypterus urticae instead of as Meligethes aenus. Joy did himself collect a single specimen of *B. urticae* on Lundy in 1905, this I have seen correctly identified in his collection.

53 As the true identity of Wollaston's original record is obscure Epuraea aestiva (L.) is included here with some doubt. If Wollaston (1845) referred to Stephens (1830) and by so doing identified his Lundy Epuraea as 'Nitidula aestiva' he would I feel sure have been misled having probably collected specimems of *E. florea* Erich. Although the specimens standing as aestiva and depressa in Stephens collection, in the British Museum (Natural History) London, are a mixture of melina Erich. and aestiva L. (=depressa Illiger) his description (1830) of aestiva is closer to florea Erich. Linnaeus). The true aestiva of Linnaeus and the specimens subove mentioned in the Stighta aestiva of Linnaeus, even so his description, as stated above, is much closer to florea (*E. of aestiva* State Illiger) have a deeply emarginate anterior border to the pronotum, whilst florea and Stephens' own description of *aestiva* have only a slight emargination. Stephens notes that the has followed Gyllenhal in considering his aestiva to be subjeta aestiva of Linnaeus, even so his description, as stated above, is much closer to florea (*E. of aestiva* sus Illiger). Stephens' (1830) description of *villosa* Thunberg, however, suggests much more accurately *aestiva* Linnaeus, *villosa* is later included, with a '?', as a synonym of *E. depressa* Illiger (=aestiva L.) in Grouvelle (1913). It therefore seems that if Wollaston's Epuraea had been the true *aestiva* L. he would have, with the aid of Stephens (1830), identified them as *villosa* but if they were florea he would have marked them, as he did, Nitiduka aestiva.

54 The identification of a single example of *Monotoma brevicollis* Aube from Lundy in the Tomlin collection at the Cardiff Museum has been checked by Mrs E.R. Peacock, British Museum (Natural History), during a recent study of the British Rhizophagidae.

55 Scymmus limbatus Steph. was originally recorded from Lundy by Wollaston in 1847 and later by Smith in 1874. Blair (1931) subsequently lists these records as S. suturalis Thunberg, limbatus at that time being considered merely as a variety or synonym of it. Since Pope (1973) reinstates limbatus as a good species it must now be considered whether the original specimens from Lundy were that or the closely similar suturalis. As Pope states, limbatus is reported as favouring willows and poplars and also as occurring in leaf litter and according to Fowler it is found in marshy places at the roots of grasses and in July 1845, Chanter (1871) writes that "Various attempts have been made to plant trees, but have always failed. A few willows, about as high as brushwood in the lower lands, to which the woodcock resort, and stunted elders, represented the trees until recently, as Mr Heaven has now planted a few pines and sycamores near his home". From this early report relating to the botany of Lundy it would seem reasonable to accept Wollaston's record as being limbatus, as shown above this coccinellid appears to favour willows. There is no reason to suppose that Chanter's willows were not present when Wollaston made his collection earlier fore seems that no suitable habitat existed in 1845 that would favour the coniferous associations of suturalis. Although it has been recorded on willows, plum trees and Pinzgmites the known prey of suturalis indicates that it must associate with pines at some major stage of its life history. I propose here to reinstate limbatus Stephs as a Lundy species and to delete suturalis. Thunberg.

Further directive in accepting limbatus as the only Scymnus so far recorded from Lundy lies in Joy's record of S. testaceus Mots. from there for this species sensu auct. Europeae ante 1967 not Motschulsky 1837 is limbatus Steph.

56 Because of the extreme rarity of *Lathridius minutus* (L.) and the relative abundance of *L. pseudominutus* (Strand) in the British Isles (Tozer 1973) Joy's record is here included as *pseudominutus* and *minutus* is deleted from the list.

57 Wollaston's original record of 'Proscarabaeus violaceus' must certainly have referred to Meloe violaceus Marsham (Stephens 1839, Waterhouse 1858). Joy (1906) records M. proscarabaeus Linnaeus from Lundy, a single specimen of which I have seen from his collection. He does not mark it as a new species record on his list and thus implies that he considered it to be the same species of meloid as that recorded by Wollaston (1847). Blair (1931) follows by listing both Joy and Wollaston as having collected proscarabaeus. Wollaston's record, however, is interpreted here as M. violaceus since at the time of his work on Lundy the species now known to be M. proscarabaeus was then known by three other names, each regarded as a separate species (Stephens 1839, Waterhouse 1859) and Proscarabaeus (=Meloe) Leach was the genus that contained them and violaceus Marsham.

58 Smith (1874) marked his record of *Cryptocephalus minutus* with an asterisk signifying that it was a species not previously found by Wollaston. He also indicates by his use of the name minutus (F.?) that he, like Stephens (1831 and 1839), considered it to be a separate species from *C. ochraceus* (Curtis?), the species previously recorded by Wollaston, Waterhouse, however, treats ochraceus of Curtis and of Stephens as a synonym of *minutus* F. not Stephens which later is listed as a synonym of *C. fubus* Goeze by Fowler (1890). Waterhouse also lists minutus of Stephens not F. as a synonym of *C. pusellus* F. Since Smith in 1874 is most likely to have used Stephens' published works it should be considered a strong possibility that his *Cryptocephalus* was pusillus in which case two species have been included under *fubus* by (1906) and Blair (1931). Both *pusillus* and *fubus* are known to occur on willow (*Salix*) which was present on the island in the 19th century, (see note 55). The presence of *fubus* on Lundy has been substantiated by Welch (1969). Although *psuillus* is entered on the list its occurrence on Lundy is questioned.

59 The inclusion of *Longitarsus ochroleucus* (Marsh.) by Campbell-Taylor (1946) is clearly an error that originates from his transcription of Blair's earlier list (1931). Whereas Blair lists *L. jacobaeae* Wat., *L. ochroleucus* (Marsh.) and *L. gracilis* Kuts., marking only the first and last as occurring on Lundy, Campbell-Taylor marks the first two and not *gracilis* as being found there. *ochroleucus* is accordingly deleted from the list.

60 Joy(1906) records 'Longitarsus jacobaeae Wat.' as new to Lundy and lists L. tabidus (F.), recorded by Wollaston (1847), as a separate species. What he evidently did not realise was that tabidus sensu auct, not Fabricius is *L. jacobaeae* Wat. Wollaston's record of tabidus and subsequent references to it are therefore placed here under jacobaeae and the true tabidus of Fabricius is deleted from the islands list.

A recent examination of Joy's original specimen of 'jacobaeae' by Mrs S.L. Shute, British Museum (Natural History) London, has shown it to be a male of *L. fabicornis* (Stephens) (Shute in litt.) a species hitherto unknown from Lundy. It is of course possible that Wollaston's specimens, on which he based his record of *jacobaeae*, may have also been *flavicornis*. However, his material has not been traced and so the record must stand as *jacobaeae*. A single female of *jacobaeae* collected by Dr Welch has been examined by Mrs Shute who agrees with the collectors determination.

61 On his first visit to Lundy, Wollaston found what he describes as "a new species of Macrocnema, allied to chrysocephala", he also gives a brief description of its colour range. Smith's short note of 1874 is the first list of Lundy Coleoptera to include this species by name as *Psyllidos* Luxchera. Blair (1931), in the introduction to his list, records the view that *luridipennis* knowen considered as a "race" of *P*. hospes Wollaston, the distribution of which appears to be Madeira, Canary Islands, Algeria and Spain. He does, however, still refer to it as a good species, *luridipennis*, in his list. Although Heikertinger (1940) places *luridipennis* as a *variety of P*. cuprea (Koch), Kloet and Hincks (1945) retain the name as a synonym of *hospes*. A recent study of the genitalia of both sexes (Shute in litt.) has shown *luridipennis* to be quite distinct from *hospes* and from all the other species with which it has been linked in the past, it appears to be most closely related to *P*. chrysocephala (L).

62 Both Blair (1931) and Campbell-Taylor (1946) list *Apion filirostre* Kby. and *A. striatum* Kby. (Marsham) consecutively in the above order. Blair correctly records striatum as having been recorded by Wollaston and Joy and since no records exist does not mark *filirostre* as occurring on Lundy. Campbell-Taylor, however, records the latter but not striatum as part of the islands fauna. Clearly this is an error in his transcription of the earlier lists. *filirostre* therefore is deleted and *striatum* retained.

63 Joy, Blair, Campbell-Taylor and Welch use the spelling 'Otiorrhynchus' in all their references to the genus Otiorhynchus.

64 Wollaston's (1847) record of *Otiorhynchus ligneus* 01. was not picked up by Blair or Campbell-Taylor, however, there is handwritten against the species in Blair's own copy of his list of the name "Tomlin", Joy's companion on Lundy earlier this century. I have seen four examples of *ligneus* collected by Joy in 1905.

65 In recording 'Polydrusus chrysomela', Wollaston (1845) reflects the generic spelling of Stephens (1839) indicating his almost certain use of that identification manual. Stephens infers that the specific name chrysomela Oliv. was after Schonherr (1833-39). Waterhouse (1858) considers the true identify of chrysomela Stephens and Schonherr (1839) not Olivier to be *P. confluens* Stephens (Kirby) (1831). Stephens (1839) reduces the status of confluens to a variety of 'chrysomela Oliv.' (sensu Stephens and Schonherr) and so indicates the closeness of his and Schonherr's interpretation of Olivier's species to confluens. Waterhouse uses the generic spelling 'Polydrosus'. Although today chrysomela sensu auct. Brit, pars not Olivier is known to be *P. pulchellus* Stephens this cannot be regarded as the true identify of Wollaston's Lundy material as of course the name *pulchellus* was also available to him in Stephens (1831 and 1839) when he identified his collection. It is therefore proposed to delete the name *chrysomela* (01.) and to place the original record on the present list under *confluens* Stephen, which is today regarded as a good species.

66 Welch (1969), in his introductory paragraph, places Sitona ambiguus Gyll. on the islands list by referring the S. lineellus Bonsd. record in Campbell-Taylor (1946) to that species. Campbell-Taylor recorded lineellus from Biair's list (1931) which in turn was compiled from the earlier lists of Wollaston, Smith and Joy without further material from Lundy being seen. The original record of lineellus has been carried in this way from Joy (1907) who gives Gyllenhal as the species author, probably after Fowler (1890). A recent examination of Joy's original material has positively identified it as the true lineellus (Bonsdorff) not auct. Brit. post 1930 (=decipiens Lindberg) and not lineellus sensu Lindberg and auct. Brit. post 1930 (=ambiguus Gyll.). S. lineellus has recently been found on Lundy by von Hayek and Welch. S. ambiguus is here removed from the list.

67 Joy uses the generic spelling 'Sitones' for Sitona.

68 Joy, Blair, Campbell-Taylor and Welch all use the generic spelling 'Ceuthorrhynchidius'.

69 Joy, Mitford, Blair, Campbell-Taylor and Welch all use the generic spelling 'Ceuthorrhynchus'.

70 Since Gymnetron beccabungae sensu auct. Brit. ante 1931 not Linnaeus is now known to be G. veronicae (Germar), (Donisthorpe 1931), Joy's record of 1907 is here placed as that species and beccabungae (L.) is deleted from the list. The most common form of 'beccabungae' was at one time known as var. nigrum Walton (niger Hardy 1852 (Walton mss?) =nigrinum of authors). Blair (1931) records Joy's record as nigrinum Walt. giving the name specific status.

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