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A provisional checklist of the Rove Beetles of Madeira Island (Coleoptera, Staphylinidae)

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ABSTRACT: This work presents a preliminary checklist of the staphylinid beetle fauna inhabiting Madeira Island. The total number of species recorded is 210, being 50 (23.8%) endemic to this island. The probable occurrence of other species is also matter of discussion.
Lastly, the most recent progresses in the study of Madeiran rove beetles are dealt with and prospects for future work are presented.
Key words: Coleoptera, Staphylinidae, Madeira Island, faunistics, endemics.

RESUMEN: Este trabajo presenta un listado preliminar de la fauna de estafilínidos de la isla de Madeira. El número total de especies citadas es de 210, de las que 50 (23.8%) son endémicas de esta isla. Se discute también la posible presencia de otras especies de estafilínidos en Madeira.
Por último, se comentan los avances en el estudio de los estafilínidos de Madeira y se proponen ciertas medidas para el trabajo futuro.
Palabras clave: Coleoptera, Staphylinidae, Isla de Madeira, faunística, endemismos.

RESUMO: No presente trabalho é apresentada uma listagem preliminar da fauna de estafilinídeos da Ilha da Madeira. São assinaladas 210 espécies, das quais 50 (23.8%) são endémicas daquela ilha. Discute-se ainda a possível ocorrência de outras espécies neste local.
Por fim, são abordados os mais recentes progressos no estudo dos estafilinídeos madeirenses e são propostas algumas medidas de trabalho futuro.
Palavras chave: Coleoptera, Staphylinidae, Ilha da Madeira, faunística, endemismos.

INTRODUCTION

For a long time past Madeira Island, the largest island of the Madeiran archipelago, has been receiving the attention of some eminent naturalists, who have contributed significantly to the characterisation and diffusion of its singular biodiversity.

One group particularly well represented in Madeira is the family Staphylinidae. Rove beetles are one of the most common and ecologically important insect components of soil fauna, occurring also in soil-related microhabitats such as dung and carrion, higher fungi, vertebrate and invertebrate nests, and in the vicinities of bodies of water (Newton, 1990).

Still, during the 19th century several works have established the foundations of the knowledge of Madeiran Staphylinidae: Thomas Wollaston, the author of the first catalogue of Madeiran Coleoptera (Wollaston, 1854), recorded the presence of 70 species of rove beetles in Madeira Island, 31 of which he described as new. In the various works that followed, this author reported and described new species raising considerably the number of species known to occur in Madeira Island (*e.g.*, Wollaston, 1857, 1860, 1861, 1862).

During the first half of the 20th century, the contributions to the knowledge of Madeiran Staphylinidae were sporadic and consisted mainly in the description of new species (*e.g.*, Scheerpeltz, 1926; Jarrige, 1942).

The last catalogue of the Madeiran Coleoptera (Lundblad, 1958) pointed out the existence of 145 species of Staphylinidae in Madeira proper (six of which requiring confirmation), from which 18% are endemics. Since then, the study of Madeiran rove beetles had an enormous increase, with special reference to the last decade when a high number of species have been described or reported to this island (*e.g.*, Erber & Hinterseher, 1988; Assing & Wunderle, 1993, 1996a; Assing, 1997b).

The aim of this work is to integrate the diverse information dealing with the staphylinid beetle fauna of Madeira Island, providing a preliminary list of species to all of those persons interested in the study of this group of beetles.

METHODS

The list of the Staphylinidae of Madeira Island here presented was based on bibliographic research. Moreover, the study of specimens recently collected during the project entitled "Uma abordagem ecológica ao estudo das entomocenoses da Laurissilva madeirense" (Project PRAXIS/2/2.1/BIA/283/94) allowed us to confirm the occurrence of certain species and to report the first finding of *Proteinus atomarius* in Madeira. The examination of some specimens deposited in private collections was undertaken in order to clarify the presence of particular species.

All the species whose occurrence we were able to confirm are marked by an asterisk.

In the present work we follow the classification system of subfamilies proposed by Lawrence & Newton (1995). Subfamilies and respective species are listed in alphabetic order.

Endemic species names are typed in bold and, in the case of archipelago endemics, the other islands of occurrence are indicated between brackets as follows:

(PS) – Porto Santo; (DG) – Deserta Grande; (Bu) – Bugio; (IC) – Ilhéu Chão.

Each specific name is accompanied by numerical codes that correspond to bibliographic citations of that particular species. Codes followed by quotation marks mean that the species was recorded as a synonym. All references are listed at the end of the work.

RESULTS AND DISCUSSION

A total of 210 species of rove beetles are known to occur in Madeira Island (Table I). The number of species endemic to Madeira Island is 50 (Table I), most of which are confined to the area of laurel forest or are associated to ecological islands within Madeira such as mountain tops and caves (Boieiro *et al.*, *in prep*). Other six species were also reported from other islands of the archipelago, besides Madeira (Table I).

The number of species recorded by subfamily is as follows: Aleocharinae (83), Habrocerinae (1), Omaliinae (6), Osoriinae (2), Oxytelinae (17), Paederinae (20), Proteininae (3), Staphylininae (48), Steninae (10), Tachyporinae (19) and Trichophyinae (1) (Table I).

The total number of species recorded from Madeira is intermediate between that of the Azores (Borges, 1990) and the Canaries (Hernández *et al.*, 1994; Machado & Oromí, 2000). It is also evident that certain groups have a considerable number of endemics in Madeira Island (genera *Geostiba*, *Stenus* and *Othius*, for example). Although several explanations could be provided to explain the patterns of species distribution in Macaronesia and within each archipelago and island, it is however consensual that the present knowledge of the Macaronesian staphylinid fauna is still incomplete.

Table I - List of staphylinid beetle species known to occur in Madeira Island and respective bibliographic references codified.

The large number of staphylinid beetle species and the fact that this group is taxonomically difficult has led to incorrect determinations of some specimens in previous works. More recently, parts of these misinterpretations have been clarified and identification keys for particular genera were brought up to date (Assing & Wunderle, 1993, 1996a, 1996b; Assing, 1997b). Nevertheless there are still some doubtful records that need confirmation.

During the elaboration of the present list the following criteria were adopted:

- *Aleochara bilineata* was reported to Madeira Island (Bernhauer, 1940), but this record probably refers to a very similar species, *Aleochara lindbergi*, described a few years later and recorded regularly since.

Aleocharinae	**References codes**	
Aleochara albovillosa Bernhauer, 1901	25	
Aleochara bipustulata Linnaeus, 1761	15, 29", 30, 40, 44, 45, 56", 57, 60, 62", 63", 67"	*
Aleochara clavicornis Redtenbacher, 1848	15, 26, 29, 30, 40, 45, 56	
Aleochara diversa (Sahlberg, 1876)	40, 44, 45	
***Aleochara lindbergi* Likovský, 1963**	**13", 24, 26, 44, 45" (PS)**	
Aleochara moesta Gravenhorst, 1802	26, 29, 30, 40, 44, 45, 56, 63, 67	
Aleochara puberula Klugman, 1833	15, 26, 29, 30, 40, 45, 56, 62", 63, 67	
Aloconota gregaria (Erichson, 1839)	29, 30, 40, 45, 56	
Aloconota insecta (Thomson, 1856)	13, 15, 16, 44, 45, 57	*
Aloconota philonthoides (Wollaston, 1854)	17, 29, 30, 40, 45, 56, 62, 63, 67	
Aloconota sulcifrons (Stephens, 1832)	13, 15, 16, 17", 26, 29, 30, 40, 45, 56, 62", 63", 67"	

Amischa analis (Gravenhorst, 1802)	15, 29, 30, 40, 45, 56, 60, 62", 63, 67	
Amischa decipiens (Sharp, 1869)	24	
Amischa soror (Kraatz, 1856)	60	
Atheta amicula (Stephens, 1832)	15, 26, 33, 44	
Atheta atramentaria (Gyllenhal, 1810)	13, 15, 17, 26, 29, 30, 40, 44, 45, 56, 57, 62, 63, 67	*
Atheta cambrica (Wollaston, 1855)	30, 45, 67"	
Atheta clientula (Erichson, 1839)	40, 45, 56, 67"	
Atheta coriaria (Kraatz, 1858)	13, 15, 17, 26, 29, 30, 40, 44, 45, 56, 62", 63, 67	
Atheta dilutipennis (Motschulsky, 1858)	15, 39	
Atheta fungi (Gravenhorst, 1806)	15, 24, 26, 29", 30", 39, 40, 45, 62", 63"	
Atheta gagatina Baudi, 1848	26	
***Atheta granulosa* (Wollaston, 1854)**	**29, 30, 40, 45, 56, 62, 63, 67**	
***Atheta haligena* (Wollaston, 1857)**	**13, 45 (PS) (IC) (Bu)**	
Atheta harwoodi Williams, 1930	25	
***Atheta insignis* (Wollaston, 1854)**	**26, 29, 30, 40, 44, 45, 56, 62, 63, 67**	
***Atheta leileri* (Palm, 1981)**	**10, 12", 51**	
Atheta longicornis (Gravenhorst, 1802)	13, 24, 26, 29, 30, 40, 44, 45, 56, 57, 62, 63, 67	*
***Atheta maderense* (Likovský, 1963)**	**15", 16", 28, 44**	
Atheta negligens Mulsant & Rey, 1873	26	
Atheta palustris (Kiesenwetter, 1844)	13, 15, 16, 29, 30, 40, 44, 45, 56, 62", 63, 67	
Atheta pertyi (Heer, 1838)	13	
Atheta pseudolaticollis Erber & Hinterseher, 1992	15", 26", 28, 40"	
***Atheta sanguinolenta* (Wollaston, 1854)**	**10, 26, 29, 30, 40, 45, 51", 56, 62, 63, 67**	
Atheta schatzmayri Benick	33	
Atheta sordida (Marsham, 1802)	13, 15, 24, 29, 30, 40, 44, 45, 56, 57, 62", 63", 67"	*
Atheta trinotata (Kraatz, 1855)	26	
Chilopora longitarsis (Stephens, 1832)	29, 30, 40, 45, 56, 63, 67	
Cordalia obscura (Gravenhorst, 1802)	13, 15, 17, 24, 26, 29, 30, 40, 44, 45, 56, 57, 60, 62, 63, 67	*
***Cypha reducta* (Wollaston, 1860)**	**29, 30, 40, 45, 56, 64, 67**	
***Geostiba arieiroensis* Assing & Wunderle, 1996**	**2, 10, 51"**	
***Geostiba bicacanaensis* Assing & Wunderle, 1996**	**2, 10**	
***Geostiba caligicola* Assing & Wunderle, 1996**	**2, 10**	
***Geostiba endogea* Assing & Wunderle, 1996**	**2, 10**	
***Geostiba ericicola* Assing, 1997**	**2**	
***Geostiba filiformis* (Wollaston, 1854)**	**2, 10, 29, 30", 45, 51", 56, 62, 63, 67 (PS)**	
***Geostiba formicarum* (Wollaston, 1854)**	**2, 10, 27, 29, 30, 40, 44, 45, 56, 62, 63, 67**	
***Geostiba graminicola* Assing & Wunderle, 1996**	**2, 10**	
***Geostiba lauricola* Assing & Wunderle, 1996**	**2, 10**	
***Geostiba lindrothi* Franz, 1981**	**2, 10, 31, 51, 52**	
***Geostiba noctis* Assing, 1997**	**2**	
***Geostiba occulta* Assing & Wunderle, 1996**	**2, 10**	
***Geostiba ruivomontis* Assing & Wunderle, 1996**	**2, 10**	
***Geostiba subterranea* Assing & Wunderle, 1996**	**10**	
***Geostiba temeris* Assing, 1997**	**2**	
***Geostiba tenebrarum* Assing, 1997**	**2**	
***Geostiba vaccinicola* Assing & Wunderle, 1996**	**2, 10**	
***Holobus ignoratus* Assing, 1998**	**4, 29", 30", 45", 56", 61"**	
Hydrosmecta thinobioides (Kraatz, 1854)	13, 15, 40, 45, 63, 67"	
Ischnoglossa prolixa (Gravenhorst, 1802)	29, 30, 45, 56	
***Madeirostiba truncorum* (Wollaston, 1857)**	**8, 13, 26, 29, 30, 40 , 45, 56, 63, 67**	
Myrmecocephalus concinnus (Erichson, 1839)	13, 15, 29", 30", 40, 44, 45, 56"	
***Myrmecopora maritima* (Wollaston, 1860)**	**1, 15", 29", 30, 39", 40, 45, 56, 64, 67**	
Nehemitropia lividipennis (Mannerheim, 1831)	13, 15, 29, 30, 40, 45, 56, 62", 63, 67	
***Oligota analis* (Wollaston, 1854)**	**29", 30", 40, 44, 45, 56, 61, 62, 63, 67**	
Oligota canariensis Williams, 1972	24, 26", 27	

Habrocerinae		
Habrocerus capillaricornis (Gravenhorst, 1806)	9, 13, 15, 29, 30, 40, 45, 56, 59, 62, 63, 67	*
Omaliinae		
Eusphalerum torquatum (Marsham, 1802)	29", 30", 40, 45, 56, 64, 67	
Phloeonomus punctipennis Thomson, 1867	15, 40, 45, 59	
Phloeonomus pusillus (Gravenhorst, 1806)	15, 26, 29, 30, 39, 40, 45, 56, 59, 62", 63", 67	*
***Phloeonomus tricolor* (Wollaston, 1865)**	**29, 30, 40, 45, 56, 67**	
Xylodromus concinnus (Marsham, 1802)	29, 30, 40, 45, 56	
***Xylostiba clavicornis* (Wollaston, 1857)**	**13, 29, 30, 40, 45, 56, 63, 67**	
Osoriinae		
Lispinus impressicollis Motschulsky, 1857	15, 29, 30, 40, 45, 56, 59	
Nacaeus irregularis (Blackwelder, 1943)	4	
Oxytelinae		
Anotylus complanatus (Erichson, 1839)	13, 15, 24, 26, 29, 30, 33, 40, 45, 56, 57, 59, 60, 62, 63, 67	*
Anotylus glareosus (Wollaston, 1854)	29, 30, 40, 45, 56, 59, 62, 63, 67	
Anotylus insignitus (Gravenhorst, 1806)	13, 26, 29, 30, 40, 45, 56, 59, 63, 67	
Anotylus nitidifrons (Wollaston, 1871)	13, 15, 17", 26, 29, 30, 40, 45, 56, 59, 60	
Anotylus nitidulus (Gravenhorst, 1802)	13, 15, 29, 30, 40, 45, 56, 57, 59, 60, 62, 63, 67	*
Carpelimus bilineatus (Stephens, 1832)	13, 15, 29, 30, 40, 45, 56, 63, 67"	
Carpelimus corticinus (Gravenhorst, 1806)	15, 26, 29, 30, 39, 40, 45, 56, 59, 62", 63, 67	*
Carpelimus exiguus (Erichson, 1840)	40, 45	
Carpelimus pusillus (Gravenhorst, 1802)	13, 15, 29, 30, 40, 45, 56, 64", 67"	
Oxytelus piceus (Linnaeus, 1767)	13, 24, 26, 29, 30, 40, 45, 56, 57, 59, 62, 63, 67	*
Oxytelus sculptus Gravenhorst, 1806	13, 15, 26, 29, 30, 40, 45, 56, 57, 59, 60, 62, 63, 67	*
Philorhinum sordidum (Stephens, 1834)	29, 30, 40, 45, 56, 64", 67"	
Platystethus alutaceus (Thomson, 1861)	40, 45	
Platystethus cornutus (Gravenhorst, 1802)	24, 29, 30, 40, 45, 56, 66, 67	
Platystethus nitens Sahlberg, 1834	15, 29, 30, 40, 45, 56, 62", 63", 67"	
Platystethus spinosus Erichson, 1840	13, 15, 40 , 45, 56, 67	
Thinodromus transversalis (Wollaston, 1857)	45	
Paederinae		
Achenium hartungi (Wollaston, 1854)	22, 29", 30, 40, 45, 56, 62, 63, 67	
***Astenus aequivocus* (Wollaston, 1860)**	**23, 29, 30", 45, 56, 64, 67**	
Astenus bimaculatus (Erichson, 1840)	17, 23, 29, 30, 40, 45, 56, 62, 63, 67	
***Astenus chimaera* (Wollaston, 1854)**	**23, 29, 30, 40, 45, 56, 62, 63, 67**	
Astenus longelytratus Palm, 1936	13, 15, 17", 23, 26, 29", 30", 40, 45, 56", 59, 60, 62", 63", 67"	
Astenus nigromaculatus (Motschulsky, 1858)	23	
Chloeocharis debilicornis (Wollaston, 1857)	13, 15, 29, 30, 40, 45, 56, 59, 63, 67	
Lithocharis ochracea (Gravenhorst, 1802)	13, 15, 17, 29, 30, 40, 45, 56, 62, 63, 67	
Lithocharis vilis (Kraatz, 1859)	24, 29, 30, 45, 56, 59	
Lobrathium multipunctum (Gravenhorst, 1802)	15, 22, 29, 30, 40, 45, 56, 57, 59, 60, 62, 63, 67	*
Medon apicalis (Kraatz, 1857)	13, 15, 23, 29, 30, 40, 45, 56, 60, 62", 63", 67"	
***Medon indigena* (Wollaston, 1857)**	**23, 29, 30, 40, 45, 56, 63, 67**	
Medon ripicola (Kraatz, 1854)	13, 15, 23, 29, 30, 40, 45, 56	
***Medon vicentensis* Serrano, 1993**	**58**	*
Pseudobium gridellii ibericum Coiffait, 1982	22	
Pseudomedon obscurellus (Erichson, 1839-40)	15, 23	
Pseudomedon obsoletus (Nordmann, 1836)	29, 30, 40, 45, 56, 57, 64", 67	
Rugilus orbiculatus (Paykull, 1789)	13, 15, 23, 29, 30, 40, 45, 56, 59, 60, 62", 63", 67"	
***Scopaeus subopacus* Wollaston, 1860**	**18", 23", 29, 30, 32, 40, 45, 56, 64, 67**	
Sunius propinquus (Brisout, 1867)	13, 15, 23, 26, 29, 30, 40, 45, 56, 59, 60, 62", 63", 67"	
Proteininae		
Megarthrus longicornis Wollaston, 1854	29, 30, 40, 45, 56, 59, 62, 63, 67	*
***Metopsia ampliata* Wollaston, 1854**	**29, 30, 40, 45, 56, 62, 63, 67, 69**	
Proteinus atomarius Erichson, 1839-40	First record	*

Staphylininae		
Creophilus maxillosus (Linnaeus, 1758)	13, 15, 26, 29, 30, 39, 40, 45, 56, 57, 59, 60, 62, 63, 67	
Gabrius nigritulus (Gravenhorst, 1802)	13, 15, 29, 30, 40, 45, 56, 57", 59, 60, 62", 63, 67	*
***Gabrius simulans* (Wollaston, 1857)**	**20, 26, 29, 30, 40", 45, 56, 59, 63, 67 (PS)**	
Gabronthus thermarum (Aubé, 1850)	15, 29, 30, 40, 45, 56, 64, 67	
Gauropterus fulgidus (Fabricius, 1787)	19	
Gyrohypnus fracticornis (Müller, 1776)	15, 17", 26, 29", 30", 40", 45", 56", 59, 60, 62", 63", 67"	
***Gyrohypnus liebei* (Scheerpeltz, 1926)**	**19, 26, 55, 59**	
Heterothops minutus Wollaston, 1860	15, 21", 26, 29", 30", 36, 40", 45", 56, 59, 64, 67	
Lepidophalus hesperius (Erichson, 1839)	13, 15, 19, 29, 30, 40, 45, 56, 64, 67	
Leptacinus pusillus (Stephens, 1833)	15, 29", 30", 40", 45, 56, 59, 64", 67"	
Neobisnius procerulus (Gravenhorst, 1806)	15, 29, 30, 40, 45, 56, 62", 63", 67"	
Ocypus aethiops (Waltl, 1835)	15, 26, 37	
***Ocypus caroli* (Jarrige, 1942)**	**20, 37, 41, 42, 45**	
Ocypus fortunatarum Wollaston, 1871	20, 26", 42, 45	
Ocypus obscuroaeneus schatzmayri Müller, 1923	20, 26, 33, 42, 45, 47, 57, 59	*
Ocypus olens (Müller, 1764)	15, 24, 26, 37, 47	*
Ocypus pedemontanus (Müller, 1924)	33	
***Othius arieiroensis* Palm, 1979**	**3, 6, 49**	
***Othius baculifer* Assing & Wunderle, 1993**	**3, 6**	
***Othius jansoni* Wollaston, 1854**	**3, 5, 6, 19, 26, 29, 30, 40, 45, 49, 56, 59, 62, 63, 67 (DG)**	
***Othius ruivomontis* Assing & Wunderle, 1993**	**3, 6**	
***Othius strigulosus* Wollaston, 1854**	**3, 5, 6, 17, 19, 24, 26, 29, 30, 40, 45, 49, 56, 59, 62, 63, 67**	
Phacophallus parumpunctatus (Gyllenhal, 1827)	13, 15, 29, 30, 40, 45, 56, 65, 67	
Phacophallus trigonocephalus (Kraatz, 1859)	24	
Philonthus concinnus (Gravenhorst, 1802)	15", 29", 30", 45, 56, 57", 62", 63"	*
Philonthus debilis (Gravenhorst, 1802)	29, 56	
Philonthus discoideus (Gravenhorst, 1802)	13, 15, 29, 30, 40, 45, 56, 63, 67	
Philonthus fenestratus (Fauvel, 1869)	15, 20, 26, 29, 30, 40, 45, 56, 59, 62", 63", 67"	
Philonthus jurgans Tottenham, 1937	26	
Philonthus longicornis Stephens, 1882	15, 24, 26, 29, 30, 40, 45, 56, 59, 60, 62", 63", 67"	
Philonthus parvicornis (Gravenhorst, 1802)	29", 30", 45", 56"	
Philonthus politus (Linnaeus, 1758)	15, 29, 30, 39, 40, 45, 56, 59, 62", 63", 67"	
Philonthus rectangulus Sharp, 1874	15, 20, 26, 39	
Philonthus rigidicornis (Gravenhorst, 1802)	47"	
Philonthus sordidus (Gravenhorst, 1802)	15", 29, 30, 40, 45, 56, 59, 62, 63, 67	
Philonthus turbidus Erichson, 1840	29, 30, 40, 45, 56, 63", 67"	
Philonthus umbratilis (Gravenhorst, 1802)	15, 20, 29, 30, 40, 45, 56, 62, 63, 67	
Philonthus ventralis (Gravenhorst, 1802)	13, 15, 29, 30, 40, 45, 56, 59, 63", 67"	
Philonthus wollastoni Scheerpeltz, 1933	20	
***Quedius nigriceps maderensis* Smetana, 1963**	**21, 40, 45, 59**	
Quedius simplicifrons Fairmaire, 1861	15, 33", 39, 59, 60"	
Quedius tristis (Gravenhorst, 1802)	24, 26, 33", 59, 60	*
Remus pruinosus (Erichson 1840)	39, 40", 45"	
Tasgius globulifer (Geoffroy, 1785)	13, 45	
***Tasgius maderae* (Jarrige, 1942)**	**20, 41, 45**	
Tasgius winkleri (Bernhauer, 1906)	33, 59	*
Xantholinus linearis (Olivier, 1794)	15, 56, 62, 63, 67	
Xantholinus longiventris Heer, 1838	15, 19, 24, 26, 40, 45, 57, 59	*
Steninae		
Stenus cicindeloides (Schaller, 1783)	17", 24, 26, 29, 30, 40, 45, 53, 56, 57, 59, 63", 67	*
Stenus guttula Müller, 1821	13, 15, 17, 26, 29, 30, 40, 45, 47, 53, 56, 59, 60, 62, 63, 67	*
***Stenus heeri* Wollaston, 1854**	**7, 29, 30, 40 , 45, 53, 56, 59, 62, 63, 67**	
***Stenus maderensis* Puthz, 1980**	**7, 54**	
Stenus ossium Stephens, 1832	24, 26, 40, 45, 57", 59	*
Stenus providus Erichson, 1839	17, 26, 29, 30, 45, 60, 62, 63	
Stenus rogeri Kraatz, 1858	40, 45, 67	
***Stenus ruivomontis* Assing & Wunderle, 1994**	**7**	
***Stenus undulatus* Wollaston, 1854**	**7, 29, 30, 40, 45, 53, 56, 59, 62, 63, 67**	
***Stenus wollastoni* Gemminger & Harold, 1868**	**7, 29", 30", 53, 59**	

Tachyporinae		
Cilea silphoides (Linnaeus, 1767)	15, 17, 29, 30, 40, 45, 56, 60, 62, 63, 67	
Coproporus pulchellus (Erichson, 1839)	15, 26, 38	
Ischnosoma pseudolongicornis (Palm, 1980)	24", 25, 50	
Lordithon thoracicus (Fabricius, 1777)	25, 26	*
Lordithon trinotatus (Erichson, 1839)	59	
***Mycetoporus johnsoni* Wollaston, 1860**	**29, 30, 40, 45, 50, 56, 59, 62", 63", 64, 67**	
Mycetoporus wollastoni Fauvel, 1897	29, 30, 40", 45, 50, 56, 62", 63", 67"	
Sepedophilus lusitanicus Hammond, 1973	15, 34	
Sepedophilus marshami (Stephens, 1832)	24, 26	
Sepedophilus monticola (Wollaston, 1854)	25, 29, 30, 40, 45, 56, 62, 63, 67	
Sepedophilus pedicularius (Gravenhorst, 1806)	40, 45, 62, 63, 67	
Sepedophilus testaceus (Fabricius, 1792)	15, 17", 26, 29", 30, 34, 40, 45, 56", 57, 59, 60, 62", 63", 67"	*
Tachinus corticinus Gravenhorst, 1802	47	
Tachyporus atriceps Stephens, 1832	40, 45	
Tachyporus caucasicus Kolenati, 1846	25, 26"	
***Tachyporus celer* Wollaston, 1854**	**25, 26, 29, 30, 40, 45, 56, 57, 62, 63, 67" (DG)**	
Tachyporus chrysomelinus (Linnaeus, 1758)	15, 59, 60	
Tachyporus dispar (Paykull, 1789)	25, 26"	
Tachyporus nitidulus (Fabricius, 1781)	13, 15, 26, 29, 30, 33, 39, 40, 45, 56, 57, 59, 60, 62", 63"	*
Trichophyinae		
Trichophya pilicornis (Gyllenhal, 1810)	15, 29, 30, 40 , 45, 56, 62", 63", 67	*

Table I - List of staphylinid beetle species known to occur in Madeira Island and respective bibliographic references codified.

- Although not listed by Lundblad (1958), *Atheta haligena* and *Atheta pertyi* have been recorded to Madeira Island (Bernhauer, 1940).

- *Atheta maderense* is considered a valid species, distinct from *A. zealandica* (Erber & Hinterseher, 1992).

- *Atheta insignis* is considered to be endemic to Madeira and its record for the Canaries (Lundblad, 1958) is assumed to be a mistake (Likovský, 1963; Hernández *et al.*, 1994; Machado & Oromí, 2000).

- The records of *Atheta laticollis* should be attributed to *Atheta pseudolaticollis* (Erber & Hinterseher, 1992).

- *Carpelimus exiguus* has probably been erroneously recorded for Madeira (Lundblad, 1958). The records of *Tachinus corticinus, Philonthus rigidicornis* (recorded as *P. fimetarius*), *Ocypus pedemontanus* and *Atheta schatzmayri* also demand confirmation (Gardner & Classey, 1961; Mitter, 1984).

- In the past, specimens of a *Sepedophilus* species have been attributed to *Sepedophilus pedicularius*, but they probably concern to other closely allied species (as happened with the records of *S. pedicularius* for southern Europe and the Mediterranean region) (Hammond, 1972).

- *Xylostiba clavicornis* is considered an endemic of Madeira. Citations of this species from the Azores refer to *X. azorica* (Borges, *pers. comm.*).

- Wollaston (1865), with some reserves, changed his identifications of *Stenus providus* to *S. rogeri* following the advice of Rye, but this species was never recorded since then. Instead, *S. providus* was recently cited from Madeira (Erber & Hinterseher, 1988) suggesting the need to clarify the occurrence of *S. rogeri* in this island.

- Several references have been pointing the occurrence of a *Remus* species in Madeira which certainly concerns to *R. pruinosus* (Israelson, 1990).

- *Quedius pallipes* was recorded for Madeira (Gardner & Classey, 1961) probably by confusion with the well established *Q. simplicifrons* (Smetana, 1963).

- Following the opinion of Horion (*in* Erber & Hinterseher, 1988), *Gyrohypnus punctulatus* and *Placusa atrata* do not occur in Madeira.

- *Myrmecopora sulcata* has probably been erroneously recorded for Madeira (Israelson, 1990) by confusion with the endemic *M. maritima* (Assing, 1997a).

- The specimens identified as *Gabrius heres* and *Stenus elegans* (Serrano, 1987) should be corrected to *Gabrius nigritulus* and *Stenus ossium*, respectively.

During the last decades the knowledge of the Staphylinidae of Madeira has been considerably improved, as can be testified by the increase in the number of articles concerning this group of beetles (Fig. 1). The number of species known to occur in this island had also a significant raise in this period (Fig. 2).

In order to achieve a better knowledge of the Madeiran rove beetles, efforts should be addressed to implement specific projects, especially in habitat types less well explored and in areas with the characteristics of ecological islands (particularly caves and mountain tops). The degree of vulnerability of endemic species should be investigated and main threats identified. The relationships between group specialists and nature conservation managers should also be straitened and the cooperation with other teams of specialists should be considered a priority.

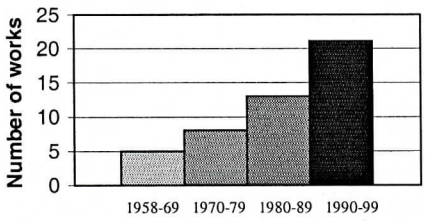

Fig. 1 – Number of works dealing with the Staphylinidae of Madeira, during the last decades (since Lundblad, 1958).

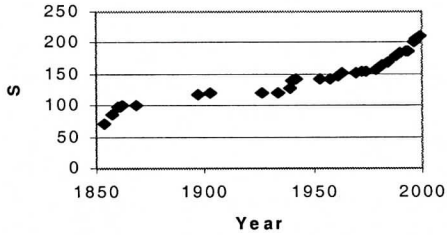

Fig. 2 – Increase in the number of Staphylinidae species known to occur in Madeira, since 1854.

Finally, it should be emphasized that this work is a preliminary contribution to the update of the knowledge of the Staphylinidae of Madeira and it is also intended to be a stimulus for future research.

The number of species known to occur in this island had also a significant raise in this period (Fig. 2).

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