

THE COLEOPTERA OF THE SELVAGEM ISLANDS, INCLUDING A CATALOGUE OF THE SPECIMENS IN THE MUSEU MUNICIPAL DO FUNCHAL

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With 4 figures and 3 diagrams

ABSTRACT. The coleopterous fauna of the Selvagem Islands has been reviewed. All records from the literature have been discussed and additional information has been included from previously unpublished collections. These records are mainly from the collection of the Museu Municipal do Funchal, specimens collected by Backhuys in 1968 (and given to us by Evers) and collections made during an expedition from Manchester University in 1984. Eight previously unrecorded species are noted from the islands, although 7 of these may have been temporary introductions. A catalogue is given of the Coleoptera of the Selvagem Islands held in the collection of the Museu Municipal do Funchal.

RESUMO. OS COLEÓPTEROS DAS ILHAS SELVAGENS, INCLUINDO UM CATÁLOGO DOS ESPÉCIMES NO MUSEU MUNICIPAL DO FUNCHAL. No mesmo trabalho, a fauna coleopterológica das Ilhas Selvagens é revista. Todos os assinalamentos da literatura são discutidos e é incluída informação adicional, com base em colecções que não haviam sido mencionadas anteriormente. Estes assinalamentos são principalmente provenientes da colecção do Museu Municipal do Funchal, de espécimes colhidos por Backhuys em 1968 (e cedido-nos por Evers) e de colecções feitas durante uma expedição da Universidade de Manchester, em 1984. São assinaladas sete espécies novas para as ilhas, embora seis destas possam ser introduções temporárias. Um catálogo dos Coleópteros das Ilhas Selvagens existentes na colecção do Museu Municipal do Funchal é apresentado.

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INTRODUCTION

The Selvagem Archipelago is remote, lying 290 km south of Madeira and 175 km north of the Canary Islands (figure 1a.) it consists of three islands; Selvagem Grande is 3.5 km² and has steep cliffs, with a central plateau at 80-154 m above sea level, Selvagem Pequena is smaller (0.8 km²) and flatter, the highest point being 49 m above sea level, Ilheu de Fora is the smallest island with an area of 0.7 km² and a maximum height of 18 m



Fig. 1a.— Map of the islands of the Archipelagos of Madeira, the Selvagem Islands and the Canaries.

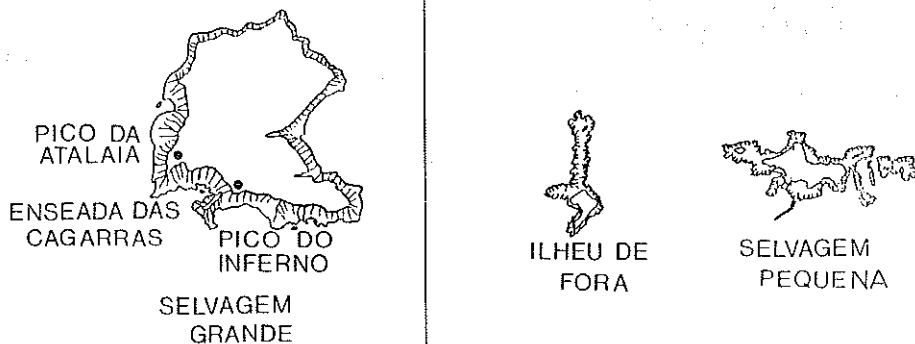


Fig. 1b. — Outline map of the Selvagem Archipelago.

above sea level. The latter island is extended to the north by several small rocks. These two smaller islands are uninhabited, and lie 20 km southwest of Selvagem Grande. Two wardens who are responsible for the protection of the seabird colonies are always present on Selvagem Grande.

The most recent list of the Coleoptera of the Selvagem Islands is by Oromi (1983). This can now be extended by eight species and the taxonomic assignment of one species may be corrected. We are also able to add information about species which have been considered rare in the Archipelago. The material on which this paper is based is partly from previous collections (mainly in the collection of the Museu Municipal do Funchal, but also material collected by Backhuys in 1968 and sent to us by Evers) which have not previously been published, and partly from collections made within the past three years, namely:

1. During August 1984 an expedition from the University of Manchester visited two of the Selvagem Islands. Coleoptera were collected from Selvagem Grande, during a visit of over three weeks, and Selvagem Pequena which was only visited briefly in mid August.
2. Coleopterous material has been collected continuously during the regular inspection trips of the Selvagem Islands by the staff of the Museu Municipal do Funchal.

This paper discusses all the species found, with reference to previous records in the literature. Other species which have previously been noted from the Islands are also discussed and their possible status examined. For comparison with Oromi's list (1983) we have used the same order of succession. We also give a list of all the specimens in the collection of the Museu Municipal do Funchal (MMF).

METHODS

In the literature different names are used for the islands:

- For the Archipelago: Ilhas Selvagens (Port.), Islas Salvajes (Span.), Iles Salvages (Fr.), Salvage Islands or Salvages (Engl.)
- For the large island: Selvagem Grande (Port.), Salvaje Grande (Span.), Grande Salvage (Fr.), Great Salvage (Engl.)
- For the middle one: Selvagem Pequena or Pitão (Port.), Gran Piton (Span.), Grand Piton (Fr.), Great Piton (Engl.)
- For the smallest one: Ilhéu de Fora or Pitão Pequeno (Port.), Salvajita (Span.), Petit Piton (Fr.), Piccolo Pitao (?)

We prefer to use Selvagem Islands, Selvagem Grande, Selvagem Pequena and Ilheu de Fora.

ANNOTATED LIST OF THE SPECIES CONTAINING SYNONYMS AND DISCUSSIONS

Conventional signs used indicate the following:

- ** species not previously recorded from the Selvagem Islands
- * new records for species previously recorded from the Selvagem Islands
- E species endemic to the Atlantic Islands
- ES species endemic to the Selvagem Islands
- 1 species established on the Selvagem Islands
- 2 species found to be rare on the Selvagem Islands
- 3 species with uncertain status

CARABIDAE

Apotomus testaceus Dejean 1825 — [3]

This is an Egyptian and southeastern European species and was recorded by Wollaston (1865) from Selvagem Grande on the basis of a single specimen, captured by Paiva. As it has not been recorded since, its status is uncertain.

Nesarpalus pelagicus (Wollaston 1862) — [1, *, ES]

- Syn. : *Harpalus pelagicus* Wollaston 1862
Cratognathus pelagicus (see Wollaston 1865)
Selenophorus pelagicus (see Fauvel 1897)
Nesacinopus pelagicus (see Alluaud 1935)

This species has been recorded as peculiar to the Selvagem Islands by Wollaston (1865) and was also recorded by Fea (1883) and Alluaud (1935) on Selvagem Grande. It has since been collected in VII 1939 on Selvagem Grande (1 individual) and in VI 1957 on Selvagem Pequena (1) by Maul, in VII 1963 on Selvagem Grande by Weinreich, in IV 1968 on Selvagem Grande (7) and Selvagem Pequena (4) by Backhuys, in IX and X 1984 on Selvagem Grande (3) by an unknown collector (preserved in the MMF), and in VI 1986 on Ilheu de Fora (1) by Biscoito. Oromi *et al.* (1978) collected the species in II/III 1976 on Selvagem Grande (39) and Selvagem Pequena (34). During the Manchester expedition in VIII 1984 this species was found under stones on the plateau in large numbers all over Selvagem Grande, but mainly on the southern part of the island. The species is obviously abundant on all the Selvagem Islands (see also Oromi 1983 and Serrano 1987).

Ophonus rotundicollis (Fairmaire 1854) — [3]

- Syn. : *Ophonus diffinis* Dejean 1829 var. *rotundicollis* Fairmaire (see Fauvel 1897, Alluaud 1935)
Harpalus stictus Stephens 1828 (see Oromi 1983)

Only one specimen of this species has previously been collected. It was captured by Paiva on Selvagem Grande and recorded by Wollaston (1865). Oromi (1983) considered that the species had been erroneously cited since he did not recognize the identifies of *Ophonus rotundicollis* and *Harpalus stictus*.

Amara cotti Coquerel 1859 — [1, *]

- Syn. : *Amara versuta* Wollaston 1863
Amara affinis Dejean 1828 (see Fauvel 1897, Garreta 1911)
(Fauvel also cites *Amara bifrons* Hartung as synonymous)

The species was first listed by Fauvel (1897) but he did not mention by whom or when the specimens were collected. Garreta (1911) collected 10 individuals on Selvagem Grande. A further specimen was found by Maul in VII 1939 on the same island. Since this is the latest record, the species appears to be as sparse on the Selvagem Islands as it is on the Canary Islands (Wollaston 1865). It is a widespread species in the Mediterranean region from Morocco to Egypt and Syria.

Orthomus barbarus Dejean 1828 ssp. **haligena** (Wollaston 1862) — [1, *, ES]

Syn. : *Pterostichus haligena* Wollaston 1862

Pterostichus haligena Dejean var. *longulus* Reiche (see Fauvel 1897)

Ptatyasma barbarus Dejean var. *longulus* Reiche (see Garreta 1911)

Pterostichus barbarus Dejean *haligena* Wollaston (see Alluaud 1935)

Orthomus barbarus ssp. *barytensis* f. *haligena* Wollaston (see Oromi *et al.* 1978)

(Fauvel 1897 also cites *Pterostichus elongatus* Chaudoir, *P. barytensis* Reiche, *P. prae'longus* Reiche, *P. atlanticus* Fairmaire, *P. rectangulus* Fairmaire)

This species was recorded by Wollaston (1862a, 1865) on the basis of specimens collected by Paiva on several occasions.

Garreta (1911) and Monod (Alluaud 1935) both collected this species (4 and 1 individuals respectively). In the collection of MMF there are 6 specimens found by Figueira in VII 1958. Further collections were made by Weinreich in VII 1963 (6) and by Oromi *et al.* (1978) (2). All these specimens were collected on Selvagem Grande, mainly under stones.

Sphodrus leucophthalmus Linnaeus 1758 — [3, *]

The first, and hitherto only record of this species from Selvagem Grande was by Garreta (1911) (5 individuals). Biscoito collected two specimens (1 male and 1 female) on 8.XI 1984 on the same island under a stone (preserved in MMF). We cannot decide whether the species has been able to survive since it was first recorded or whether the recent specimens were further introductions, perhaps from the Canary Islands where the species occurs on Tenerife, Gran Canaria and Lanzarote.

Cymindis setifensis Lucas 1842 var. **pseudosuturalis** Bedel 1906 — [3]

Syn. : *Tarus suturalis* Wollaston 1854

Wollaston (1865) recorded this species from Selvagem Grande on the basis of a single specimen collected by Paiva. Since then there have been no further records. It may have been a brief introduction from the Canary Islands where it is common. The species is spread over North Africa and also occurs on the Madeiran Archipelago.

Cymindis paivana (Wollaston 1862) — [1, *, ES]

Syn. : *Tarus paivana* Wollaston 1862

This species has been recorded from Selvagem Grande by Wollaston (1862a), Fea (1883), Garreta (1911), Alluaud (1935) and Oromi *et al.* (1978). It was also found by Maul on Selvagem Pequena and by Zino on Ilheu de Fora, both in VI 1957, and again on Selvagem Grande by Figueira in VII

1958 and by an unknown collector in XI 1984 (all preserved in MMF). Backhuys collected the species from all three islands in 1968; 3 from Selvagem Grande, 25 from Selvagem Pequena and 1 from Ilheu de Fora. During the Manchester expedition in VIII 1984 five specimens were collected under stones on level areas of the plateau of Selvagem Grande, where there was ground cover of fairly dense *Mesembryanthemum crystallinum* L.. The species is abundant on all three Selvagem Islands (see also Oromi 1983).

***Stenolophus discophorus* (Fischer 1824) — [3]**

Syn. : *Acupalpus discophorus* Fischer 1824

The presence of this species on Selvagem Grande, based on a single specimen collected by Paiva, was viewed with some doubt by Wollaston (1865). Fauvel (1897) also listed it as doubtful and Alluaud (1935) supposed that it was a specimen of *Stenolophus teutonius* Schrank 1781, which is abundant in Europe, on the Canary Islands and on Madeira. The inclusion of this species in a checklist of the Coleoptera of Selvagem Grande must be viewed with caution.

***Masoreus affinis* Chaudoir 1843 ssp. *arenicola* Wollaston 1863 — [3, **, E]**

Weinreich collected one specimen on 20.VII 1963 on Ilheu de Fora, and this seems to be the only record for the Selvagem Islands. Whilst *M. affinis s. str.* is distributed in North Africa from Egypt to Morocco, the subspecies *arenicola* (Wollaston, 1863, considered it a full species) is known from Fuerteventura and Lanzarote (Mateu 1984). We may assume that the specimen was an introduction from the Canary Islands to the Selvagem Islands, possibly as a single individual, since no further record has been published. The specimen is preserved in Erber's collection.

***Dromius insularis* Wollaston 1854 ssp. *oceanicus* Wollaston 1865 — [3, **, E]**

The only record of this species from the Selvagem Islands is a single specimen collected by Maul on 4.VI 1957 on Selvagem Pequena (in the collection of MMF under MMF 11754). Whilst *D. insularis s. str.* occurs on Madeira proper the subspecies *oceanicus* is found on the Deserta Islands (Mateu 1957).

HYDRAENIDAE

***Ochthebius quadricollis* Mulsant 1844 ssp. *heeri* Wollaston 1854 — [1, *, E?]**

Syn. : *Colobius heeri* Wollaston 1854

The first published record of this species was by Oromi *et al.* (1978) who collected 90 specimens on Selvagem Grande and 4 specimens on Selvagem Pequena. Previous to this the species was collected on Selvagem

Grande by Noronha in V 1922 (10 individuals) and by Weinreich in VII 1963 (nearly 20). Maul collected a specimen on Selvagem Pequena in VI 1957.

O. quadricollis Mulsant is distributed in the western Mediterranean region. Individuals from Madeira were described as *O. (Colobius) heeri* by Wollaston (1854). Whilst Jansson (1940) and Lundblad (1958) listed the species from the Selvagem Islands as *O. quadricollis heeri*, Oromi (1983) listed it as *O. quadricollis*, but only gave the Atlantic Islands as its distribution. It is unclear, therefore, whether the animals from the Atlantic Islands (Madeira, the Selvagem Islands and the Canary Islands) are a separate subspecies.

HYDROPHILIDAE

Cercyon nigriceps (Marsham 1802) — [1, *]

Syn. : *Cercyon centrimaculatum* (Sturm 1807)

The species was recorded from Selvagem Grande by Wollaston (1862a) on the basis of a single specimen collected by Paiva. During the Manchester expedition it was found to be common under stones and amongst ground vegetation on the plateau of Selvagem Grande. It is a common European species and has been noted as being widespread on the Madeiran and Canary Islands (Wollaston 1865). Méquignon (1964) recorded it from the Azores. The species frequently occurs in dung.

STAPHYLINIDAE

Leptobium paivae (Wollaston 1865) — [1, *, ES]

Syn. : *Dolicoon paivae* Wollaston 1865

This endemic species was first recorded by Wollaston (1865) who received 8 individuals from Selvagem Grande collected by Paiva. It was also recorded by Fea (1883) who collected a good series on Selvagem Grande. Garreta (1911) found 8 specimens in piles of wings of dead birds left after the annual slaughter (Hartog *et al.* 1984) and Monod (Alluaud 1935) collected 3 specimens on Selvagem Grande. Oromi *et al.* (1978) collected 7 specimens on Selvagem Pequena. Hitherto unpublished collections were made by Maul in VI 1957 (1) and Backhuys in IV 1968 (2) on Selvagem Pequena, Figueira in VII 1958 on Selvagem Grande (3), Weinreich in VII 1963 (3) and Backhuys in IV 1968 (1) on Selvagem Grande and Maul in VIII 1970 on Selvagem Pequena, Pico Veado, under stones (12).

Philonthus politus Linnaeus 1758 — [3]

Syn. : *Philonthus aeneus* Rossi 1790

This cosmopolitan species, occurring in Europe, Madeira and the Azores (Méquignon 1946), but not on the Canary Islands, was first listed

from Selvagem Grande by Wollaston (1865) on the basis of a single individual collected by Paiva. Wollaston (1865) was already doubtful about the status of the species on the island. Since there have been no further records the species should be struck from the list of Selvagem Island Coleoptera (see also Alluaud 1935 and Oromi 1983).

Philonthus longicornis Stephens 1832 — [3]

This cosmopolitan species, known from the Canaries, the Azores and Madeira is mentioned as being present on the Selvagem Islands by Smetana (1970), but without any sources or dates. Since this is the only record, its occurrence on the Selvagem Islands is uncertain.

ELATERIDAE

Cardiophorus oromii Cobos 1978 — [2, ES]

This species was collected by Oromi *et al.* (1978) on Selvagem Grande (1 male and 1 female) in II/III 1976 and described as a new endemic species by Cobos (1978). The holotype is in the Museo Insular de Ciencias Naturales de Tenerife; the allotypes are in the Instituto de Aclimatación de Almería.

DERMESTIDAE

Anthrenus verbasci Linnaeus 1767 — [1, *]

Syn. : *Anthrenus varius* Fabricius 1792

The widespread species (Europe, Asia Minor, Mediterranean region, Canary Islands, Madeira and the Azores) was recorded as abundant on Selvagem Grande by Wollaston (1865). Although not found to be common during the Manchester expedition, specimens were found, with larvae, in the corpses of several Cory's shearwaters on the cliffs surrounding Enseada das Cagarras on Selvagem Grande.

Dermestes maculatus De Geer 1774 — [1, *]

Syn. : *Dermestes vulpinus* Fabricius 1781

Garreta (1911) found three specimens of this species on Selvagem Grande under a dead bird. It has subsequently been found by several collectors on the same island: Weinreich in VII 1963 (2); Backhuys in IV 1968 (1); Oromi *et al.* (1978) in II/III 1976 from the corpse of a bird (12); Pieper from the corpse of a bird collected by Zino in 1986. During the Manchester expedition in VIII 1984 this species was found to be fairly common in the corpses of seabirds on the plateau of Selvagem Grande east of the triangulation point. No collections were made from any other habitat and even

corpses of birds found on the cliffs were not infested with the species. It seems, therefore, that there is a relatively restricted distribution which is concentrated around the frigate petrel colony on this island. *D. maculatus* is a common European species living on dry corpses and other animal material. It occurs on the Canary Islands, Madeira and the Azores.

LATHRIDIIDAE

Corticaria sp. — [3]

Oromi *et al.* (1978) reported the find of a single individual by sieving earth from under *Suaeda vera* Gmel. on Selvagem Grande. Oromi (1983), however, did not list the species. It is possible that the specimen could not be definitely identified.

MELYRIDAE

Psilothrix illustris (Wollaston 1854) — [3]

Syn. : *Dasytes illustris* Wollaston 1854

Wollaston (1871) recorded that he had received a single specimen from Selvagem Grande, collected by Paiva, and Fauvel (1897) listed the species as present on the Selvagem Islands. Although common on the Madeiran Islands (Wollaston 1865) there are no other records of the species from the Selvagem Islands and this may have been an introduction of brief duration.

MALACHIIDAE

Ifnidius atlanticus Evers 1981 — [2, ES]

There is only one known specimen (female) of this new endemic species. It was found by Oromi *et al.* (1978: first suggested as *Macrotrichoferus* sp.) in II/III 1976. Whilst Oromi *et al.* (1978) and Oromi (1983) record Selvagem Grande as the place of discovery, Evers (1981) gives it as Selvagem Pequena.

Attalus oceanicus Evers 1971 — [1, ES]

This species was found by Backhuys in VI 1968. He collected 12 males and 12 females on Selvagem Pequena and one female on Selvagem Grande. The species, which lives on *Argyranthemum thalassophilum* (Svent.). Humphr. on Selvagem Pequena is related to *A. ochraceus* Lindberg (found on the Canary Islands Lanzarote and Graciosa), but is brachypterous and unable to fly. The holotype and paratypes are preserved in the collection of Evers, paratypes are also held in the Rijksmuseum, Leiden (Evers 1971).

OSTOMIDAE

Leipaspis caulicola Wollaston 1862 **oceanica** Wollaston 1865 — [2, *, E]

Syn. : *Lipaspis* (see Wollaston 1865)

Wollaston (1865) recorded this species as being restricted to the rotting stems of *Euphorbia* sp., and noted its presence on Selvagem Grande from a single specimen collected by Paiva, which he described as var. *oceanica*. Bischoit collected a single specimen of the species from a dry stalk of *Nicotiana glauca* Grah. from Selvagem Grande on 8.XI 1984 (preserved in MMF). (Also in this stalk were a number of *Amaurorhinus clermonti* ssp. *salvagensis* Folw. and *Salvagopselactus maui* Folw. as well as a specimen of *Anobium velatum* Woll. see below). The former are the only records for *L. caulicola* and, therefore, the indicated distribution of the species on all three Selvagem Islands by Oromi (1983) is probably erroneous. The ancestral form (see Wollaston 1962b) of this species is known from the Canary Islands Tenerife, Hierro and Fuerteventura (Plata-Negrache & Prendes-Ayala 1980).

NITIDULIDAE

Meligethes varicollis Wollaston 1854 — [3, **]

Syn. : *Meligethes ryei* Wollaston 1871

Backhuys collected a single individual of this previously unrecorded family on Selvagem Pequena on 6.-8.IV 1968. This species is distributed in northwestern Africa and on the Iberian Peninsula (Spornraft pers. comm.) and is known from Madeira, where it was found at Ribeiro Frio on 22.V 1850 in numbers on flowers, but was not seen elsewhere or later in the year (Wollaston 1854). It has also been recorded from the Canary Islands Lanzarote and Fuerteventura, where it is common, and from Tenerife, where it was found rarely in the north (Wollaston 1864: in 1871 he differentiated the Canarian specimens as *M. ryei* from the Madeiran *M. varicollis*). As we have only one specimen (held in Erber's collection) it may be a casual introduction to the Selvagem Islands. There is, however, a second find of one specimen, this time made in Selvagem Grande and recorded by Serrano (1987).

COCCINELLIDAE

Coccinella algerica Kovár 1977 — [3]

Wollaston (1871) recorded the species from Selvagem Grande as *C. septempunctata* and Fauvel (1897) also listed it under the same name. Kovár (1977) examined *C. septempunctata* specimens from Tunisia, Algeria, Morocco and the Canary Islands and found distinctions between these and

those from Europe. He regarded the former as a distinct species and named it *C. algerica*. Oromi (1983) also listed the Selvagem Island specimens under this name. Since one of us (Erber) has also found that all of the specimens which he collected on the Madeira Islands have the characteristics of *C. algerica* it is probable that the individual which Wollaston received from Paiva was also a specimen of this species. Since, however, there is no further record, it is uncertain whether the species is still resident on the Selvagem Islands.

***Adonia variegata* Goeze 1777 — [3]**

Syn. : *Coccinella mutabilis* Scriba 1790

This cosmopolitan species was first listed by Fauvel (1897), but without any sources or dates. Weinreich collected one individual on Selvagem Pequena on 20.VII 1963. Since the species is abundant on the Canary Islands casual introductions may have occurred.

***Scymnus (Nephus) flavopictus* Wollaston 1854 — [3, **, E]**

Syn. : *Scymnus oblongior* Wollaston 1864

Scymnus maculosus Wollaston 1864

A single specimen of this species was collected on Selvagem Pequena by Backhuys in IV 1968. The specimen was determined by Fürsch, who views *Nephus* as the real genus, and is preserved in Erber's collection. Wollaston (1854) recorded the species as rare on Madeira proper and common on Ilheu Chão (see also Wollaston 1857 and 1865). In 1963 Lindberg found the species on Madeira proper, Porto Santo and Bugio (see Bielawsky 1963; he also cites the species as occurring on the Canaries). Erber has obtained single specimens of this species from Ilheu Chão and Ilheu da Cevada. The species is distributed over the Canaries, Madeiras and the Azores.

ANOBIIDAE

***Clada oromii* Español 1978 — [1, *, ES]**

This new endemic species of the Selvagem Islands was described by Español (1978) on the basis of 20 individuals, which hatched out of a dead trunk of *Suaeda vera* Gmelin collected by Oromi *et al.* (1978) on Selvagem Pequena in II/III 1976. A further individual has been located in the collection of the MMF (detected there by Erber) having been collected in VI 1957 by Maul, also on Selvagem Pequena. *C. oromii* is closely related to two species which are found on the Canary Islands; *C. fernandezi* Español and *C. denticornis* ssp. *insularis* Israelson (Español 1978).

Anobium velatum Wollaston 1854 — [3, **, E]

Syn. : *Nicobium villosum* (Brullé 1818)

Biscoito collected a specimen of this species from a dry stalk of *Nicotiana glauca* Grah. from Selvagem Grande on 8.XI 1984. This is only the second record of this species from the Selvagem Islands. The first is a specimen, detected by Erber in the collection of the MMF, which is labelled as being found on Selvagem Grande, but has no recorded date or collector. These specimens are preserved in the MMF under MMF 562 and MMF 23668. The species is known from all the major Canary Islands except for Gran Canaria and La Palma, and from Madeira and the Azores (Lundblad 1958).

PTINIDAE

Sphaericus bicolor Bellés 1982 — [1, *, ES]

Backhuys collected 89 individuals of this species from Selvagem Pequena, 4 from Ilheu de Fora and 1 from Selvagem Grande in IV 1968. Oromi *et al.* (1978) collected 30 individuals in II/III 1976 on Selvagem Pequena from *Suaeda vera* Gmel.. These were recognized as a new species by Bellés (1982).

OEDEMERIDAE

Alloxantha fulva (Wollaston 1854) — [1, *, ES]

Syn. : *Ditylus fulvus* Wollaston 1854

This species is abundant on the Selvagem Islands and has been listed by Fauvel (1897), Alluaud (1935), Jansson (1940), Lundblad (1958), Oromi *et al.* (1978) and Oromi (1983) as *Holoxantha concolor* (Brullé). *A. fulva* (Woll.) is, however, the correct name (Franz 1985). The species is endemic to the Selvagem Islands, whilst *H. concolor* occurs on the Canary Island Tenerife. The taxonomic confusion was probably caused by Wollaston who distinguished the first find, collected by Leacock on Selvagem Pequena, from the Canarian *Ditylus concolor* Brullé 1838 and named it *D. fulvus* (Wollaston 1854). Later, however (Wollaston 1862a) he regarded both species as identical, as he did in 1865 when he recorded a second specimen collected by Paiva on Selvagem Grande.

Further specimens have been collected since then: by Maul in VI 1957 on Selvagem Grande (2) and Selvagem Pequena (16); by Zino in VI 1957 on Ilheu de Fora (1); by Weinreich in VII 1963 on Selvagem Grande and Selvagem Pequena (9 in total); by Backhuys in IV 1968 on Selvagem Pequena (1) and Ilhéu de Fora (1); by Biscoito in X 1984 on Selvagem Grande (1); and by Zino in V 1986 on Selvagem Grande. During the Manchester expedition in VIII 1984 two specimens were collected near the cistern at the base of *Nicotiana glauca* Grah. plants. The species may be

less restricted to areas of *Euphorbia* sp. than was suggested by Wollaston (1865) (see also Serrano 1987).

Oedemera barbara (Fabricius 1792) — [3]

Syn. : *Necydalis barbara* Fabricius 1792

This species was recorded a short time ago by Serrano (1987) as new to the Selvagem Islands: H. Delgado collected two specimens on 18.VII 1984 on Selvagem Grande. The species is distributed in the Mediterranean region and is hitherto not known from any other Atlantic island.

MORDELLIDAE

Anaspis proteus Wollaston 1854 — [1, E]

This macaronesian species was first recorded by Oromi *et al.* (1978), who collected 7 individuals on Selvagem Grande and 32 on Selvagem Pequena from flowers.

TENEBRIONIDAE

Hegeter latebricola Wollaston 1854 — [1, *, ES]

The species was first detected by Leacock on Selvagem Pequena and later, in profusion, by Paiva on Selvagem Grande (Wollaston 1854 and 1865). Wollaston (1865), therefore, recorded it as being common on both islands. Further specimens were collected by Fea (1883) in 1882. Later collections were made in VII 1939 by Maul on Selvagem Grande (1), in VI 1957 by Maul on Selvagem Pequena (4) and by Zino on Ilheu de Fora (5), in VI 1958 by Figueira on Selvagem Grande (10), in VII 1963 by Weinreich on Selvagem Grande (2) and on Selvagem Pequena (5), in IV 1968 by Backhuys on Selvagem Pequena (95) and Ilheu de Fora (33), in XI 1984 by Biscoito on Selvagem Grande from a trunk of *Nicotiana glauca* Grah. (2), in IV 1986 by Biscoito on Ilheu de Fora (17). Oromi *et al.* (1978) collected 10 individuals on Selvagem Grande and 139 on Selvagem Pequena, mostly in dead trunks. During the Manchester expedition in VIII 1984 only a single specimen was found. This was collected from the west of the island, under a stone in an area of sparse vegetation. The date of this collection may have missed the main period of activity of the species (see also Serrano 1987).

Hegeter tristis Fabricius 1792 — [1, *]

This species, abundant throughout the Macaronesian Islands (Canaries, Madeira, Azores), and on the Cape Verdes (Geisthardt 1982) was first mentioned for the Selvagem Islands by Fea (1883), who collected specimens on Selvagem Grande. Garreta (1911) and Monod (Alluaud 1935) found it to be frequent on Selvagem Grande. It has also been collected on Sel-

vagem Grande by Noronha in V 1922 (15), by Maul in VII 1939 (6), by Figueira in X 1955 (3) and in VII 1958 (2), by Weinreich in VII 1963 (2) and by Backhuys in IV 1968 (13). Oromi *et al* (1978) captured 21 specimens from the same island. During the Manchester expedition in VIII 1984 large numbers of this species were found under stones on the plateau of Selvagem Grande. To date the species has not been found on the two smaller Selvagem Islands (see also Serrano 1987).

Blaps gigas (Linnaeus 1767) — [1, *]

Syn. : *Blaps gages* Fabricius 1792

This large European tenebrionid, which Wollaston (1965) described as being widespread over the Canary and Madeiran Islands, and was listed for the Azores by Lundblad (1958), was first mentioned from Selvagem Grande by Fea (1883) and was collected by Paiva (Wollaston 1865). Garreta (1911) and Monod (Alluaud 1935) found it to be abundant on this island. Other collections were made on Selvagem Grande by Noronha in V 1922 (4), by Maul in VII 1939 (1), by Figueira in VII 1958 (1), by Weinreich in VII 1963 (1) and by Backhuys in IV 1968 (4). Oromi *et al.* (1978) collected 4 specimens on this island. During the Manchester expedition in VIII 1984 several specimens were collected from the base of Pico da Atalaia on Selvagem Grande amongst *Lycopersicon esculentum* Miller growing on stony ground, and from the area around the wardens' house in Enseada das Cagarras. Larvae of this species were also found in the burrows of Cory's shearwaters on the cliffs surrounding Enseada das Cagarras, and to a lesser extent in burrows on the plateau (Wheater 1986). The species has not been noted from the two smaller Selvagem Islands (see also Serrano 1987).

Gonocephalum dilatatum (Wollaston 1854) — [1, *, ES]

Syn. : *Opatrum dilatatum* Wollaston 1854

Wollaston described the species on the basis of a single specimen from Selvagem Pequena, collected by Leacock in 1851. Further finds were made on Selvagem Grande by Monod (Alluaud 1935) (2), by Maul in VII 1939 (5) and in VI 1957 (14), by Figueira under stones in VII 1958 (2), by Biscoito in XI 1984 (3), by Zino in V 1986 (1) and on Selvagem Pequena by Weinreich in VII 1963 (3) and by Backhuys in IV 1968 (14). The first records for Ilheu de Fora are given here, based on a specimen captured by Backhuys on 9.IV 1968, and one collected by Zino on 8.IV 1986 (preserved in MMF under MMF 24024). Oromi *et al.* (1978) collected 8 specimens on Selvagem Grande and 12 on Selvagem Pequena. During the Manchester expedition in VIII 1984 a single specimen was found on Selvagem Grande on the Plateau above Enseada das Cagarras. This species is closely related to *G. oblitum* Wollaston 1864 which occurs on the Canary Islands (see also Serrano 1987).

Trachyscelis aphodioides Latreille 1809 — [1, *]

This species was first recorded by Oromi *et al.* (1978). They collected 10 specimens on Selvagem Pequena in II/III 1976 from *Suaeda vera* Gmel.. Backhuys also collected this species on Selvagem Pequena in IV 1968 (18). The species has a Mediterranean and North African distribution and also occurs on the Canary and Cape Verde Islands (Geisthardt 1982).

Phaleria atlantica Fauvel 1899 — [3]

Syn. : *Phaleria bimaculata* Wollaston 1865

This species is yet another recorded by Wollaston (1865) on the basis of a single specimen collected by Paiva on Selvagem Grande. Fauvel (1897) listed it as "sp. dubia", and it may be that only one individual of this species, which is distributed over southern France and Portugal, had been introduced to the island. Consequently the status of this species must be in doubt.

Cataphronetis fossoria (Wollaston 1861) — [3]

Syn. : *Pseudostena fossoria* Wollaston 1861

Oromi *et al.* (1978) found one specimen in II/III 1976 on Selvagem Pequena on *Zygophyllum fontanesii* Webb. This was the first record for the Selvagem Islands of this species, which is distributed on the Canary Islands and the coast of the Sahara. (Oromi (1983) listed it (erroneously?) as *C. angusta* Woll., which occurs on the Cape Verdes (Geisthardt 1982)).

Nesotes leacocianus (Wollaston 1854) — [1, *, ES]

Syn. : *Helops leacocianus* Wollaston 1854

Wollaston (1854) recorded the species from Selvagem Pequena where it had been found by Leacock in 1851. In 1865 he recorded it from the two larger Selvagem Islands and noted that it was common on Selvagem Grande (Wollaston 1865). Fea (1883) collected some specimens of this species on Selvagem Grande in 1882. Garreta (1911) and Monod (Alluaud 1935) also found it on Selvagem Grande. Further collections were made on Selvagem Grande "Debaixo de Pedras" (collector not mentioned) in X 1955 (1), by Figueira in VII 1958 (5), by Biscoito in XI 1984 (3) and on Selvagem Pequena by Maul in VI 1957 (1) and by Backhuys in IV 1968 (3). Oromi *et al.* (1978) collected 42 specimens on Selvagem Grande and 25 on Selvagem Pequena. The first records on Ilheu de Fora were made by Backhuys in IV 1968 (3) and by Biscoito who collected 2 specimens on 8.VI 1986 (catalogue number MMF 24035). During the Manchester expedition in VIII 1984 several specimens were collected under stones on the plateau on Selvagem

Grande. The majority of the specimens were found at the south east of the island, but several specimens were also collected from Ponta Espinha in the north east.

Nesotes monodi Alluaud 1935 — [1, *, ES]

Alluaud (1935) described this endemic species from an individual which was collected by Monod in XII 1933 on Selvagem Grande. Erber detected ten specimens in the collection of the MMF all of which were collected on Selvagem Grande. These were collected by Figueira on 14.X 1955 (1), by an unknown collector (under a stone on the plateau) on 2.XI 1970 (1), and by Biscoito on 29.X 1984 (4) and on 7.XI 1984 (4).

CERAMBYCIDAE

Deucalion oceanicus Wollaston 1854 — [1, *, ES]

Leacock captured 7 specimens of this species in 1851 from the Selvagem Islands. Wollaston (1854), who published the record wrote that "The insects under consideration come from the smaller of the two islands (known nevertheless as "Great Piton"), which Mr. Leacock describes as a very singular spot; being a cone of rock projecting out of a sandy base, and covered with a profusion of plants" (1854: 433). Since there are three Selvagem Islands, we believe that Leacock only visited the smaller two which lie close to each other but at a distance of 20 km from Selvagem Grande, and that he found the species on the smaller of these, namely Ilheu de Fora. Wollaston, however, probably interpreted Leacock's report incorrectly and added "Great Piton" as the place of discovery. This was probably confounded by Leacock's description of the island which does sound remarkably similar to Selvagem Pequena. This confusion may have been the reason why Oromi (1983) cited both islands as localities. Maul (pers. comm.), who searched these islands very intensively in II 1963 found the species only on Ilheu de Fora (2). Both specimens were given to the British Museum. Backhuys collected 18 specimens of this species from Ilhéu de Fora in IV 1968. On 8.IV 1986 Zino and Biscoito each collected a specimen of the species from Ilhéu de Fora. The specimens differ greatly in size, one being 14 mm in length and the other only 9 mm. A similar difference is also the case for the specimens collected by Maul in 1963 and for those collected by Backhuys where the range of lengths was from 9-15 mm. These later specimens (collected by Zino and Biscoito) are preserved in the MMF (MMF 24022 and 24031). Two large specimens hatched in I 1987 in half rotten pieces of *Euphorbia obtusifolia* Poir. var. *desfoliata* Menezes which were collected on 8.IV 1986 on Ilheu de Fora (Maul pers. comm.).

Clythus erythrocephalus (Fabricius 1792) — [3]

Syn. : *Callidium erythrocephalum* Fabricius 1792

Neoclythus erythrocephalus (see Oromi 1983)

This species was recorded from Selvagem Grande by Wollaston (1865) on the basis of a single specimen, collected by Paiva. He suggested that this North American species may have been introduced via the wreck of an American ship. This is the only record of the species from this island and it seems probable that the species is no longer present on the island. It is also possible that the locality sent with the specimen to Wollaston was incorrect and that the species has never been part of the fauna of the region, or that the species, if introduced, never became established.

CHRYSOMELIDAE

Lema melanopus (Linnaeus 1761) — [3]

Although Wollaston (1865) recorded this common European species as being abundant throughout the Atlantic Islands, he listed its presence on Selvagem Grande on the basis of only one specimen, collected by Paiva. This is the only record and its continued presence is uncertain.

Macrocoma oromiana Daccordi 1978 — [3, E]

This recently recorded species, described by Daccordi (1978) on the basis of specimens from Alegranza, the Canary Islands, was collected on Selvagem Grande by Oromi *et al.* (1978) in II/III 1976; they found only one female.

Longitarsus aeneus (Kutschera 1762) — [3]

Syn. : *Thyamis aenea* Kutschera 1762

(*Longitarsus fuscoaeneus* see Wollaston 1865)

Wollaston (1865) recorded this species, which has a European and Mediterranean distribution, to be present in association with *Echium violaceum* (= *E. lycopsis* L.) on the eastern Canary Islands. He also noted its presence on Selvagem Grande, where Paiva captured one specimen. There have been no further records of this species, and during the Manchester expedition there was no evidence of *Echium* sp. (Read 1987, in Bocagiana 106) although *E. lycopsis* L. had been listed as present by Hansen & Sunding (1979). It is possible that the record of *L. aeneus* was of a casual introduction, or that the plant and its attendant beetle species are no longer present.

Psylliodes stolidus Wollaston 1860 — [3, **, E]

This species is known from the Canary Islands Lanzarote and Fier-

teventura, where it may principally live on *Mercurialis annua* L. (Wollaston 1865). Backhuys collected 3 specimens of this species on Selvagem Grande in IV 1968. These were determined by Döberl and 2 of which are in Erber's collection, while the remaining one remained in Döberl's collection.

BRUCHIDAE

Acanthoscelides obtectus Say 1831 — [2, **]

Syn. : *Acanthoscelides obsoletus* Say 1831

Maul captured six specimens of this species on 18.VIII 1970 on a window pane inside Zino's house on Selvagem Grande. Five of these specimens are preserved in the collection of the MMF under MMF 22894 and one is in Erber's collection. The species has a European distribution and was recorded from Tenerife by Uyttenboogaart (1937) and Decelle (1975), from all the islands of the Azores (Méquignon 1946) and from the Cape Verdes (Geisthardt 1982).

CURCULIONIDAE

Laparocerus garretai Uyttenboogaart 1940 — [1, *, ES]

The species was first recorded by Garreta (1911) who found one dead individual on Selvagem Grande, but could not identify it. Uyttenboogaart (1940) described it as a new species, related to the Canarian *L. obsitus* Wollaston 1864 and to the Madeiran *L. ventrosus* Wollaston 1854. Oromi *et al.* (1978) recorded 43 individuals (36 from Selvagem Grande and 7 from Selvagem Pequena) of a *Laparocerus* species. These were listed by Oromi (1983) as *L. garretai*. Another individual, a female, was captured by Zino on Ilheu de Fora on 8.IV 1986. This individual fits Uyttenboogaart's description, except that the measurements given for his specimen (length = 5.5 mm; breadth = 2.75 mm) do not tally with those of Zino's specimen (length = 4.2 mm; breadth = 2.2 mm). Unfortunately the two specimens could not be compared since the whereabouts of the type could not be found. One of us (Erber) has examined 37 of the specimens collected by Oromi *et al.*. Only three females approach the measurements of the type specimen; the majority are smaller (range of length 3.75 to 5.4 mm and breadth 1.85 to 2.75 mm). Males and females are difficult to distinguish, the female appears slightly more truncate with slightly more distinctly rounded humeral angles than those of the male (see figure 2). The measurements of length and breadth, as well as the ratio of breadth to length can also help to differentiate them (diagrams 1-3). These measurements and their ratios are significantly different at the 0.001% level between males and females (as shown by non-parametric tests on the distributions — Meddis 1984). The ratio of elytral breadth to elytral length or the distance between the eyes is less suitable. The specimen collected by Zino is preserved in the

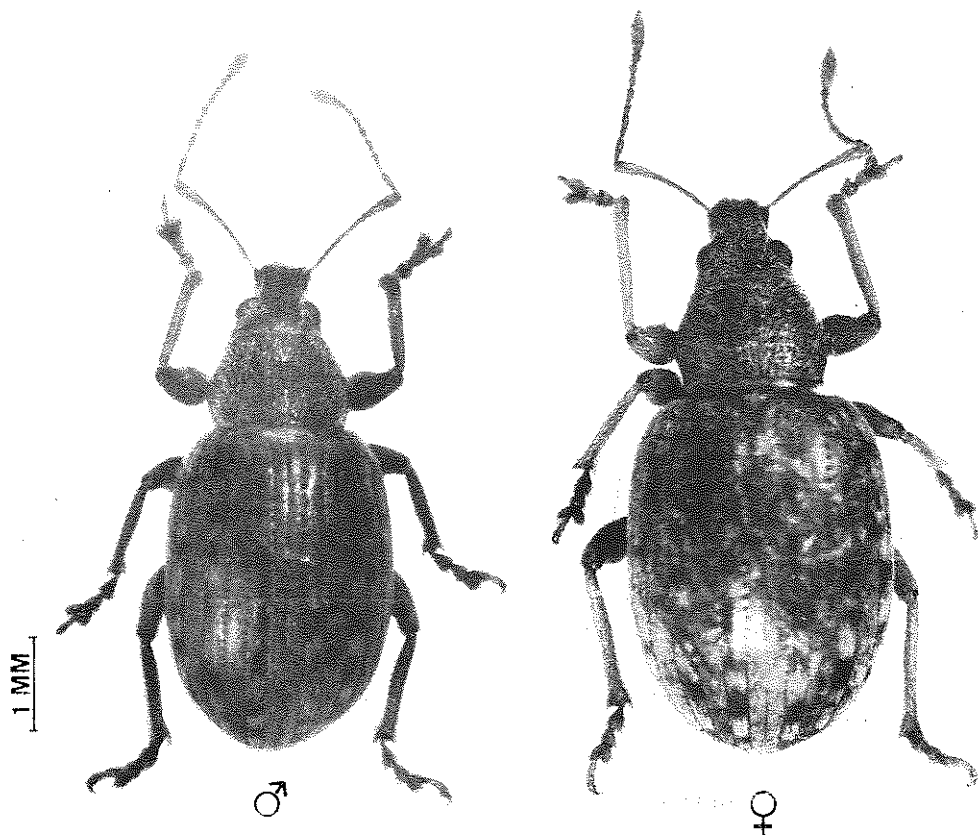


Fig. 2.—*Laprocerus garretai* Uytt. 1940.

MMF (MMF 24021) and those collected by Oromi *et al.* are preserved in the collection of the Museo de Ciencias Naturales de Tenerife, with the exception of one pair which are in Erber's collection. During the Manchester expedition in VIII 1984 several specimens were found on the plateau of Selvagem Grande. They were collected mainly under stones near Pico do Inferno in areas of dense *Suaeda vera* Gmel.. Those collected (2) had a mean length of 5.25 mm and breadths of 2.45 mm.

***Laprocerus morio* Boheman 1834 — [3, E]**

The presence of this Canarian and Madeiran species was regarded as doubtful by both Wollaston (1865) and Alluaud (1935), and Oromi (1983) eliminated it from his list as erroneously cited.

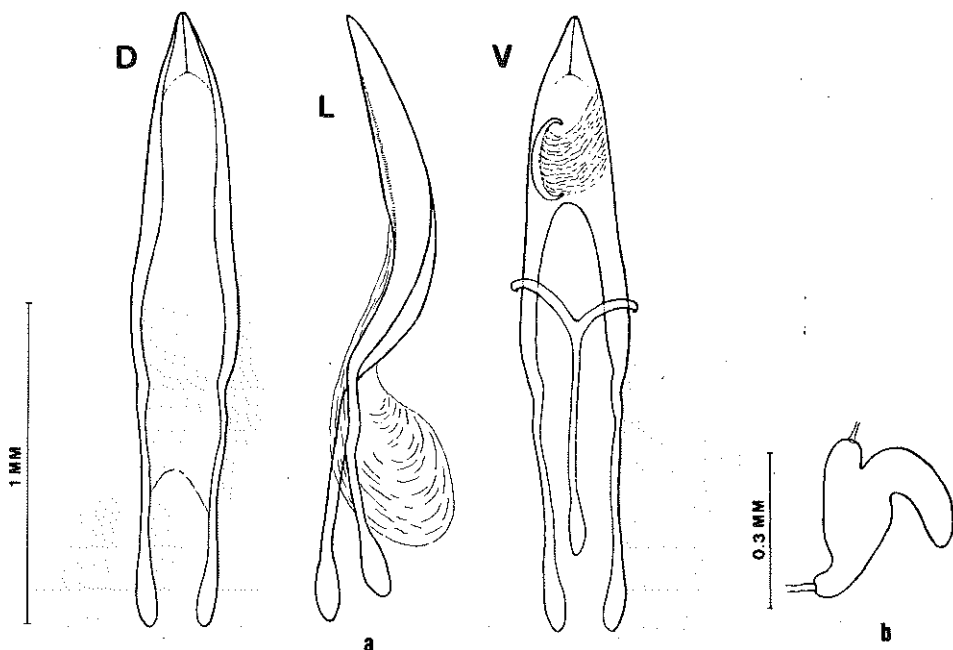


Fig. 3.— Genitalia of *Laparocerus garretai*. a = aedeagus: D = dorsal view, L = lateral view, V = ventral view; b = spermatheca.

Sitona cambricus Stephens 1831 — [3, **]

Previously unrecorded from the Selvagem Islands, this European species has been noted as common throughout the Madeiran Islands and to be scarce in the Canary Islands (Wollaston 1865). Méquignon (1946) listed it for the Azores. A single specimen was discovered in VIII 1984 during the Manchester expedition in the area of the cistern below the lighthouse on Selvagem Grande. The permanent presence of this species on the island is uncertain and this individual may have been a casual introduction.

Amaurorhinus clermonti Desbr. 1910 ssp. *salvagensis* Folwaczny 1972 —
[1, *, ES]

This Cossonine species was first collected by Maul in VIII 1970 on all three islands of the Selvagem Archipelago (a total of 16 specimens, and was described as a subspecies by Folwaczny (1972). A further 35 specimens were collected by Oromi *et al.* (1978) on Selvagem Pequena. Osella

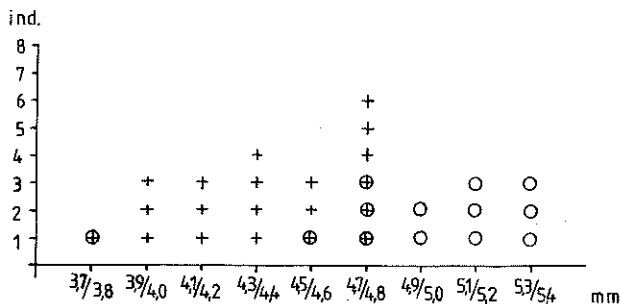


Diagram 1.—Length of *Laparocerus garretai*. + = ♂ (median = 4.35 mm); o = ♀ (median = 4.85 mm) — Test of difference between males and females $H = 15.1$, $df = 1$, $p = 0.0003$ (Meddis 1984).

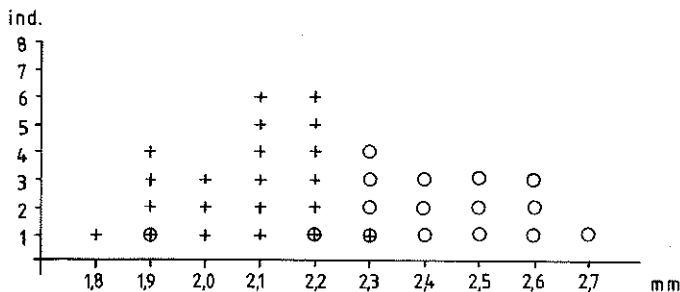


Diagram 2.—Breadth of *Laparocerus garretai*. + = ♂ (median = 2.1 mm); o = ♀ (median = 2.45 mm) — Test of difference between males and females $H = 19.5$, $df = 1$, $p = 0.0001$ (Meddis 1984).

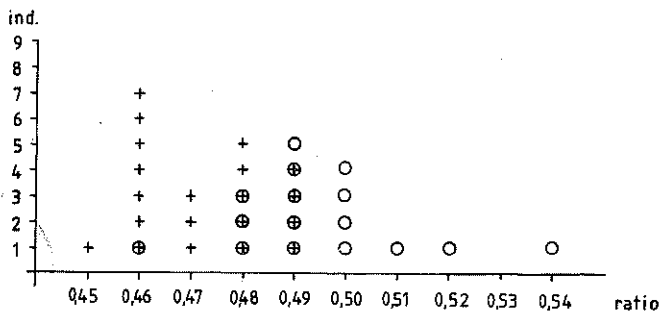


Diagram 3.—Ratio of breadth: length of *Laparocerus garretai*. + = ♂ (median = 0.47); o = ♀ (median = 0.49) — Test of difference between males and females $H = 13.95$, $df = 1$, $p = 0.0004$ (Meddis 1984).

(1978), who determined these specimens, stated that he could not find any difference from the type form from Tenerife. Oromi (1983) considered the species to be present only on Selvagem Pequena; probably he did not consider Folwaczny's publication. In XI 1984 Bischoit found a number of specimens of *A. clermonti* ssp. *salvagensis* in a dry stalk of *Nicotiana glauca* Grah. from Selvagem Grande; 17 are registered in the MMF under MMF 22669 and some are in Erber's collection.

Leipommata oromianum Osella 1978 — [2, ES]

In II/III 1976 Oromi *et al.* (1978) collected two males and two females of a Cossonine species on Selvagem Grande, which Osella (1978) described as new to science. Two type specimens are preserved in the Museo de Ciencias Naturales de Tenerife, the other two are in the Museo di Verona.

Pentatemnus arenarius Wollaston 1861 ssp. *incognitus* Osella 1978 —
[1, *, ES]

P. arenarius was described by Wollaston in 1861 from the Canary Islands; the species is distributed over the Canary Islands, the Cape Verdes and Southwest Morocco (Folwaczny 1973). The Selvagem Islands were listed as a locality for this species by Folwaczny (1973) but without reference to dates or collectors. In VII 1963 Weinreich captured two specimens on Selvagem Pequena. Oromi *et al.* (1978) collected 30 individuals on Selvagem Pequena under *Suaeda vera* Gmel.. Osella (1978), who examined these specimens, erected the ssp. *incognitus*. The type specimens are preserved in the Museo de Ciencias Naturales de Tenerife and in the personal collection of Osella in the Museo di Verona.

Salvagopselactus maui Folwaczny 1972 — [1, *, ES]

This species was first detected by Maul on Selvagem Pequena in VIII 1970 and described by Folwaczny (1972). Over 100 specimens were found in the dry stalk of *Nicotiana glauca* Grah. which Bischoit collected from Selvagem Grande in XI 1984. Most of these are preserved in the MMF under MMF 83667, some are in Erber's collection.

Cleonus conicirostris (Olivier 1807) ssp. *jekelii* (Wollaston 1862) — [1, *, E]

This species, which is widespread in the Madeiran and Canary Islands, was first discovered on the Selvagem Islands by Mendoneo, who collected a specimen on Selvagem Grande on 2.IX 1938 (Uyttenboogaart 1940). It has since been collected on the same island by Weinreich in VII 1963 (8 individuals) and by Bischoit in X 1984 (3) and XI 1984 (2). During the Manchester expedition in VIII 1984 this species was by far the most

common species found on Selvagem Grande. It was present under stones over the majority of the plateau, especially in areas where bushes of *Suaeda vera* Gmel. were growing (see also Serrano 1987).

It appears that this species has been a relatively recent introduction, probably from the Canary Islands. Both authors have also collected specimens of this species from the eastern end of the Madeiran peninsula Ponta de São Lourenço (Erber in VIII 1983 and Wheeler in VII/VIII 1986), a site from which it has not previously been noted. The species appears to be becoming widespread amongst the Atlantic Islands, especially in areas which are dry and sandy.

Sibinia primita (Herbst 1795) — [3, *]

Three specimens were discovered by Maul on 20.VII 1939 on Selvagem Grande. One of these was identified by Marshal as *S. primita*, a species of European and Mediterranean distribution. It has been recorded once on Lanzarote; two specimens (Lindberg 1958: 59). Two of the Selvagem specimens are preserved in the MMF under MMF 547 and MMF 551, and the other is in Erber's collection.

Oromi *et al.* (1978) mentioned two curculionid beetles collected on Selvagem Grande, which they refer to as *Tychius* sp.. Since *Tychius* and *Sibinia* are very similar, we suppose that these two individuals are also *S. primita*. Unfortunately they could not be examined since they are no longer available (Machado pers. comm.).

Acalles neptunus Wollaston 1854 — [1, *, ES]

This species was recorded by Wollaston (1854) from Selvagem Pequena, where Leacock captured several specimens in the spring of 1851. Further collections, also on Selvagem Pequena, were very poor in quantity of specimens; one by Fernandes (Uytenboogaart 1940), two by Maul in VI 1957 and one by Weinreich in VII 1963. The first finds on Ilhéu de Fora were made by Backhuys in IV 1968 (1) and by Zino in IV 1986 (1). Oromi *et al.* (1978) recorded 7 specimens from Selvagem Pequena. During the Manchester expedition in VIII 1984 a single specimen of this species was found on the plateau of Selvagem Grande near the lighthouse on Pico da Atalaia. Although Selvagem Pequena was visited briefly at this time the species was not found there.

Echinodera pallida Israelson 1985 — [1, ES]

This species, of which Maul collected 7 specimens, six on Selvagem Grande and one on Selvagem Pequena, was recognized as a new endemic species by Israelson (1985).

DISCUSSION

Sixty one species of Coleoptera have been recorded from the Selvagem Archipelago. Of these 27 (marked "3" in the list above) are of uncertain status. Eleven of them were recorded by Wollaston on the basis of single specimens collected by Paiva, and have not been collected since. The remaining 16 consist of at least 2 species previously listed in error (*Philonthus longicornis* and *Laparocerus morio*), the remaining 14 species probably being introductions from other Atlantic Islands or from the Mediterranean region. Eight of these were recorded on the basis of single specimens, and the other 6 species are represented by 2 (*Meligethes varicollis*, *Anobium velatum*, *Oedemera barbara*), 3 (*Psylliodes stolida*), 3-5 (*Sibinia primita*), or even 7 individuals (*Sphodrus leucophthalmus*). It seems likely that none of these species are established on the Selvagem Islands and that the true list consists of the 34 species marked "1" and "2" above.

Wollaston (1865 and 1871) produced a list of 27 species found on the Selvagem Islands and Fauvel (1897) catalogued 28 species from the same area. Oromi (1983) recorded 42 species from the Archipelago. The proportions of species endemic to the Atlantic Islands, compared to those which are widespread elsewhere in the world are 50% (Wollaston 1865), 44% (Wollaston 1871), 43% (Fauvel 1897), 64% (Oromi 1983) and 56% (present study). In comparison with our "true" list of 34 species Oromi's consists of 8 more. We consider that a number of his records have uncertain status, and if ever present have probably been temporary introductions.

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CHECK-LIST OF THE COLEOPTERA FROM THE SELVAGEM ISLANDS IN THE
COLLECTION OF THE MUSEU MUNICIPAL DO FUNCHAL

(SG = Selvagem Grande, SP = Selvagem Pequena, IF = Ilhéu de Fora; Date of collection; collector; catalogue number; number of individuals; HT = Holotype; PT = Paratype)

CARABIDAE

<i>Nesarpalus pelagicus</i> Woll.	SG	20. VII 1939 Maul	499	1
	SG	14. X 1955 Figueira	6690A	76
	SP	4. VI 1957 Maul	11755	1
	SG	25. VII 1963 Weinreich		
	SG	X 1977 Biscoito	23295	1
	SG	7. XI 1984		2
	SG	29. X 1984 Biscoito		2
	IF	8. IV 1986 Biscoito	24036	1
<i>Amara cottyi</i> Coque	SG	20. VII 1939 Maul	511	1
<i>Orthomus barbarus</i> <i>ssp. haligena</i> Woll.	SG	16-23. VII 1958 Figueira		6
	SG	25. VII 1963 Weinreich		6
<i>Sphodrus leucophthalmus</i> L. <i>Cymindis paivana</i> Woll.	SG	8. XI 1982 Biscoito		2
	SP	4. VI 1957 Maul	11752	6
	IF	5. VI 1957 Zino	11760	3
	SG	16-23. VII 1958 Figueira		6
	SP	6- 8. IV 1968 Backhuys		10
	SP	21. VIII 1970 Maul	22891	3
	SG	7. XI 1984		1
<i>Dromius insularis</i> <i>ssp. oceanicus</i> Woll.	SP	4. VI 1957 Maul	11754	1

HYDRAENIDAE

<i>Ochthebius quadricollis</i> <i>ssp. heeri</i> Woll.	SG	V 1922 Noronha	1645	} 11
			- 1651	
	SP	5. VI 1957 Maul	11753	5
	SG	25. VII 1963 Weinreich		31

STAPHYLINIDAE

<i>Leptobium paivae</i> (Woll.)	SP	4. VI 1957 Maul	11753	1
	SG	16-23. VII 1958 Figueira		1
	SP	17-22. VIII 1970 Maul	22889	10

DERMESTIDAE

<i>Dermestes maculatus</i> Deg.	SG	17-23. VII 1963 Weinreich		10
	SG	1986 Zino		4

ANOBIIDAE

<i>Clada oromii</i> Esp.	SP	4. VI 1957 Maul	11758A	1
<i>Anobium velatum</i> Woll.	SG	20. VII 1939 Maul	562	1
	SG	8. XI 1984 Biscoito	23668	1

PTINIDAE

<i>Sphaericus bicolor</i> Bellés	SP	6- 8. IV 1968 Backhuys		30
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OEDEMERIDAE

<i>Alloxantha fulva</i> (Woll.)	SG	3. VI 1957 Maul	11765	2
	SP	4. VI 1957 Maul	11749	16
	IF	5. VI 1957 Zino	11761	1
	SP	20. VII 1963 Weinreich		9
		21. VIII 1970 Maul		1
	SG	29. X 1984 Biscoito		1
	SG	V 1986 Zino	24126	1

TENEBRIONIDAE

<i>Hegeter latebricola</i> Woll.	SG	20. VII 1939 Maul	464	1
	SP	5. VI 1957 Maul	11757	4
	IF	5. VI 1957 Zino	11759	5
	SG	24. VII 1958 Figueira		10
	SP	20. VII 1963 Weinreich		4
	SG	23. VII 1963 Weinreich		1
	SP	6- 8. IV 1968 Backhuys		20
	IF	6- 8. IV 1968 Backhuys		10
	SP	21. VIII 1970 Maul	22893	8
	SG	8. IX 1984 Biscoito		2
	IF	8. IV 1986 Biscoito	24034	13
			24125	4

<i>Hegeter tristis</i> F.	SG	V 1922 Noronha	1727-1741	15
	SG	20. VII 1939 Maul	458-463	6
	SG	16-23. VII 1958 Figueira		1
	SG	10. IV 1968 Backhuys		6
	SG	29. 1984 Biscoito		6

<i>Blaps gigas</i> L.	SG	V 1922 Noronha	1742-1745	4
	SG	20. VII 1939 Maul	457	1
	SG	16-23 VII 1958 Figueira		2
	SG	10. IV 1968 Backhuys		2
	SG	29. X 1984 Biscoito		1

<i>Gonocephalum dilatatum</i> Woll.	SG	20. VII 1939 Maul	519-521 523, 526	}	5
	SG	3. VI 1957 Maul	11766		
	SP	4. VI 1957 Maul	11781		4
	SG	16-23. VII 1958 Figueira			1
	SP	20. VII 1963 Weinreich			13
	SP	6. IV 1968 Backhuys			5
	SG	19. VIII 1970 Maul	22896		4
	SG	7. XI 1984 Biscoito			3
	IF	8. IV 1986 Zino	24024		1
	SG	V 1986 Zino	24127		1
<i>Trachyscelis aphodioides</i> Latr.	SP	6- 8. IV 1968 Backhuys			8
<i>Nesotes laecocianus</i> Woll.	SP	4. VI 1957 Maul	11758		1
	SG	16-23. VII 1958 Figueira			3
	SG	7. XI 1984 Biscoito			1
	SG	9. XI 1984 Biscoito			1
	IF	8. IV 1986 Biscoito	24035		2
<i>Nesotes monodi</i> Alluaud	SG	14. X 1955 Figueira	6690A		1
	SG	2. XI 1970			1
	SG	29. X 1984 Biscoito			2
	SG	7. XI 1984 Biscoito			3
CERAMBYCIDAE					
<i>Deucalion oceanicus</i> Woll.	IF	9. IV 1968 Backhuys			8
	IF	8. IV 1986 Zino	24022		1
	IF	8. IV 1986 Biscoito	24031		1
	IF	8. IV 1986 (Hatched in I 1987)	24166 +24167	}	2
BRUCHIDAE					
<i>Acanthoscelides obtectus</i> Scop.	SG	18. VII 1970 Maul	22894		7
CURCULIONIDAE					
<i>Laparocerus garretai</i> Uytt.	IF	8. IV 1986 Zino	24021		1
<i>Amaurorhinus clermonti</i>	SG	20. VII 1939 Maul	544		1
<i>ssp. salvagis</i> Folw.	SP	VIII 1970 Maul			4
	SG	8. XI 1984 Biscoito	23669		17

1987	Erber & Wheeler, The Coleoptera of the Selvagem Islands	187
<i>Pentatemnus arenarius</i> ssp. <i>incognitus</i> Osl.	SP 20. VII 1963 Weinreich	2
	SP 5. VI 1970	1
	SP VIII 1970 Maul	4 PT
<i>Salvagopselactus maui</i> Folw.	SG 8. XI 1984 Biscoito 23667	>100
<i>Cleonus conicrostris</i> ssp. <i>jekelii</i> Woll.	SG 20. VII 1939 Maul	472 1
	SG 16-23. VII 1958 Figueira	1
	SG 17-25. VII 1963 Weinreich	26
	SG 19. VIII 1970 Maul	22895 8
	SG 29. X 1984 Biscoito	3
	SG 7. XI 1984 Biscoito	2
<i>Sibinia primita</i> Herbst	SG 20. VII 1939 Maul	547, 551 2
<i>Acalles neptunus</i> Woll.	SP 4. VI 1957 Maul	11750 17
	SP 21. VIII 1970 Maul	22892 2
	SG 24. VII 1958 Figueira	2
	IF 8. IV 1986 Zino	24023 1
<i>Echinodera pallida</i> Israelson	SG 20. VII 1939 Maul	548 1
	SG 20. V 1970 Maul	23716
		-23719
		23720
		} 4 PT
		1 HT