JEANNEL, R. (1959). Un Staphylinide cavernicole nouveau du Maroc. - *Bull. Soc. Sci. Nat. Phys. Maroc* 39: 205-211.

LINDBERG, H. 1953. Zweiter Beitrag zur Kenntnis der Käferfauna der Kanarischen Inseln. - *Comment. Biol.* 13 (2): 1-18.

LOHSE, G. A. (1988). Staphylinidenstudien II. - *Entomol. Blätter* 84: 41-50.

LUCAS, P. H. (1846). Histoire naturelle des animaux articulés. Deuxième partie. Insectes. - In: *Exploration scientifique de l'Algérie. Sciences Physiques. Zoologie* 2: 1-590.

MACHADO, A. & P. OROMÍ (2000). *Elenco de los coleópteros de las Islas Canarias*. - Instituto de Estudios Canarios, La Laguna: 306 pp.

OROMÍ, P. & J. L. MARTÍN (1984). *Apteranopsis canariensis* n. sp., un nuevo coleóptero cavernícola de Tenerife (Coleoptera, Staphylinidae). - *Nouv. Rev. Ent. (N. S.)* 1: 41-48.

PACE, R. (1977). Quindici nuove specie di stafilinidi ipogei dell'Italia centro-meridionale (Coleoptera). - *Redia* 60: 125-177.

PACE, R. (1994). *Atlantostiba franzi* gen. n., sp. n. delle Canarie (Coleoptera, Staphylinidae). - *Lavori Soc. Ven. Sc. Nat.* 19: 71-75.

PACE, R. (1999). Due nuove specie di Aleocharinae microftalme di Malta (Coleoptera, Staphylinidae). - *Doriana, Suppl. Ann. Mus. civ. Stor. Nat. "G. Doria"* 7, N. 314: 1-6.

PALM, T. (1976). Zur Kenntnis der Käferfauna der Kanarischen Inseln 15-16. - *Ent. scand.* 7: 71-74.

SMETANA, A. & A. DAVIES (2000). Reclassification of the north temperate taxa associated with *Staphylinus* sensu lato, including comments on relevant subtribes of Staphylinini (Coleoptera: Staphylinidae). - *American Museum Novitates* No. 3287: 1-88.

WOLLASTON, T. V. (1964). *Catalogue of the Coleopterous Insects of the Canaries in the collection of the British Museum*. - London: 633 pp.

WOLLASTON, T. V. (1865). *Coleoptera Atlantidum, being an enumeration of the coleopterous insects of the Madeiras, Salvages and Canaries*. - London: 526 pp. + Appendix: 140 pp.

ZERCHE, L. (1996). Die *Oxypoda*-Arten der Kanarischen Inseln: Taxonomie, Bionomie, Phylogenie und Biogeographie. - *Beitr. Ent. Berlin* 46: 277-372.

ZERCHE, L. (1998). Phylogenetisch-systematische Revision der westpaläarktischen Gattung *Metopsia* WOLLASTON, 1854. - *Beitr. Ent. Berlin* 48: 3-101.

Fecha de recepción: 1 febrero 2002 Fecha de aceptación: 3 diciembre 2002

VIERAEA	Vol. 30	45-66	Santa Cruz de Tenerife, diciembre 2002	ISSN 0210-945X

On the Staphylinidae of the Canary Islands. IX. New synonyms and records, and a systematic rearrangement of some endogean and cavernicolous Aleocharinae (Coleoptera)

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ASSING, V. (2002). Sobre los Staphylinidae de las islas Canarias. IX. Nuevas citas y sinonimias, y un reordenamiento sistemático de algunos Aleocharinae endógeos y cavernícolas. *VIERAEA* 30: 45-66.

RESUMEN: Se poponen las siguientes sinonimias: *Omalium excavatum* Stephens, 1834 = *Homalium sculpticolle* Wollaston, 1864, syn. n.; *Lobrathium anale* (Lucas, 1846) = *Lathrobium multipunctum canariense* Wollaston, 1865, resyn., =*Lathrobium.oviceps* Fauvel, 1902, syn. n.; =*L. ulbrichi* Coiffait, 1978, syn. n.; *Ocypus canariensis* Gemminger & Harold, 1868 = *Staphylinus addendus* Lindberg, 1953, syn. n.; *Atheta misella* (Wollaston, 1864) = *Meotica roudieri* Jarrige, 1952, syn. n.; *Apteranopsis tanausui* Hernández & Martín, 1990 = *A. palmensis* Hernández & Martín, 1990, syn. n.; *Alevonota* Thomson, 1858 = *Atlantostiba* Pace, 1994, syn. n. *Astenus nigromaculatus* var. *canariensis* Coiffait, 1971 se reconoce como un nombre ya ocupado. Se designan lectotipos para *Homalium sculpticolle* Wollaston y *Lathrobium multipunctum canariense* Wollaston. Se presentan varias primeras citas para las islas Canarias. El antiguo género *Apteranopsis* Jeannel se atribuye a *Drusilla* Leach como un subgénero, dando lugar a las siguientes nuevas combinaciones: *Drusilla* (*Apteranopsis*) *lethierryi* (Fauvel), *D.* (*A.*) *theryi* (Fauvel), *D.* (*A.*) *convexifrons* (Fairmaire), *D.* (*A.*) *foreli* (Wasmann), *D.* (*A.*) *hipponensis* (Fauvel), *D.* (*A.*) *raffrayi* (Fairmaire), and *D.* (*A.*) *villosus* (Peyerimhoff). Se redescriben *D. lethierryi* and *D. theryi*. Un estudio comparativo de todas las especies canarias atribuidas a los géneros *Sipalia* Mulsant & Rey, *Geostiba* Thomson, *Apteranopsis* Jeannel, *Atlantostiba* Pace, y *Alevonota* Thomson originan las siguientes nuevas combinaciones: *Alevonota franzi* (Palm), *Alevonota palmi* (Franz), *Alevonota hephaestos* (Hernández & García), *Alevonota canariensis* (Oromí & Martín), *Alevonota outereloi* (Gamarra & Hernández), *Alevonota tanausui* (Hernández & Martín), and *Alevonota junoniae* (Hernández & Martín). Se propone *Alevonota pacei* nom. n. como nombre de sustitución para *Atlantostiba franzi* Pace, 1994, un homónimo secundario posterior de *Sipalia franzi* Palm, 1976. Se describe e ilustra *Alevonota oromii* una nueva especie

de Tenerife, diferenciada de sus congéneres canarios, especialmente de su presumible especie hermana *A. franzi* (Palm). Se ilustran los hasta entonces desconocidos caracteres sexuales masculinos de *A. franzi* y *A. pacei*.
Palabras clave: Coleópteros, Staphylinidae, islas Canarias, taxonomía, nueva especie, nombre de sustitución, nuevos sinónimos, nuevas citas, designación de lectotipos.

ABSTRACT: The following synonymies are proposed: *Omalium excavatum* Stephens, 1834 = *Homalium sculpticolle* Wollaston, 1864, syn. n.; *Lobrathium anale* (Lucas, 1846) = *Lathrobium multipunctum canariense* Wollaston, 1865, resyn., =*Lathrobium.oviceps* Fauvel, 1902, syn. n.; =*L. ulbrichi* Coiffait, 1978, syn. n.; *Ocypus canariensis* Gemminger & Harold, 1868 = *Staphylinus addendus* Lindberg, 1953, syn. n.; *Atheta misella* (Wollaston, 1864) = *Meotica roudieri* Jarrige, 1952, syn. n.; *Apteranopsis tanausui* Hernández & Martín, 1990 = *A. palmensis* Hernández & Martín, 1990, syn. n.; *Alevonota* Thomson, 1858 = *Atlantostiba* Pace, 1994, syn. n. *Astenus nigromaculatus* var. *canariensis* Coiffait, 1971 is recognized as an unavailable name. Lectotypes are designated for *Homalium sculpticolle* Wollaston and *Lathrobium multipunctum canariense* Wollaston. Various first records are presented from the Canary Islands. The former genus *Apteranopsis* Jeannel is attributed to *Drusilla* Leach as a subgenus, resulting in the following new combinations: *Drusilla* (*Apteranopsis*) *lethierryi* (Fauvel), *D.* (*A.*) *theryi* (Fauvel), *D.* (*A.*) *convexifrons* (Fairmaire), *D.* (*A.*) *foreli* (Wasmann), *D.* (*A.*) *hipponensis* (Fauvel), *D.* (*A.*) *raffrayi* (Fairmaire), and *D.* (*A.*) *villosus* (Peyerimhoff). *D. lethierryi* and *D. theryi* are redescribed. A comparative study of all the Canarian species previously attributed to the genera *Sipalia* Mulsant & Rey, *Geostiba* Thomson, *Apteranopsis* Jeannel, *Atlantostiba* Pace, and *Alevonota* Thomson yielded the following new combinations: *Alevonota franzi* (Palm), *Alevonota palmi* (Franz), *Alevonota hephaestos* (Hernández & García), *Alevonota canariensis* (Oromí & Martín), *Alevonota outereloi* (Gamarra & Hernández), *Alevonota tanausui* (Hernández & Martín), and *Alevonota junoniae* (Hernández & Martín). The replacement name *Alevonota pacei* nom. n. is proposed for *Atlantostiba franzi* Pace, 1994, a secondary junior homonym of *Sipalia franzi* Palm, 1976. *Alevonota oromii* sp. n. from Tenerife is described, illustrated, and distinguished from its Canarian congeners, especially its presumable sister species *A. franzi* (Palm). The previously unknown male sexual characters of *A. franzi* and *A. pacei* are figured.
Key words: Coleoptera, Staphylinidae, Canary Islands, taxonomy, new species, replacement name, new synonyms, new combinations, new records, lectotype designation.

INTRODUCTION

During the past decades, the Canarian Staphylinidae have been subject to various revisionary studies, so that the present knowledge of the taxonomy and distribution of most taxa can be regarded as fairly sound. In fact, the Canary Islands may be considered to have one of the best-studied staphylinid faunas in the whole of the Palaearctic region.

The state of the art was recently compiled in a complete catalogue of Canarian Coleoptera (Machado & Oromí, 2000). Nevertheless, some (sub-)genera (e. g. *Sepedophilus* Gistel, *Atheta* Thomson) still require a thorough revision, the systematic affiliations of others have remained doubtful, and the identities of several (sub-)species need clarification. Moreover, various recent discoveries of undescribed species and new records show that our knowledge of the species inventory of the archipelago has not yet reached completion.

In order to fill some of the gaps and to clarify some of the remaining taxonomic problems, various types and additional material were examined, resulting in several new synonyms, new combinations, new records, and the discovery of an undescribed species. In addition, some recent taxonomic changes that have been published after the catalogue by Machado & Oromí (2000) are compiled.

MATERIAL

Types and additional material deposited in the following public and private collections were examined:

BMNH	The Natural History Museum, London (M. Brendell, S. Shute)
DEI	Deutsches Entomologisches Institut, Eberswalde (L. Zerche)
IRSNB	Institut Royal des Sciences Naturelles de Belgique, Bruxelles (D. Drugmand)
MNHNP	Muséum National d´Histoire Naturelle, Paris (N. Berti)
TFMC	Museo de Ciencias Naturales, Santa Cruz de Tenerife (G. Ortega)
ULL	Departamento de Biología Animal, Universidad de La Laguna (P. Oromí)
ZMH	Zoological Museum Helsinki (J. Muona)
cAss	author´s private collection
cGar	Private collection R. García Becerra, Santa Cruz de La Palma
cOro	Private collection P. Oromí, La Laguna
cSch	Private collection M. Schülke, Berlin
cWun	Private collection P. Wunderle, Mönchengladbach

NEW SYNONYMS AND NEW RECORDS

Omalium excavatum Stephens, 1834

Homalium sculpticolle Wollaston, 1864: 602f.; **syn. n.**

Types examined: Lectotype ♂, present designation: Type / *Homalium sculpticolle* / The Canary Is. T.V.Wollaston. Brit.Mus. 1864-80 / Syntype / Lectotypus *Omalium sculpticolle* ♂ Wollaston desig. V. Assing 2000 (BMNH). Paralectotypes: 2 ♂♂, 2♀♀: The Canary Is. T.V.Wollaston. Brit.Mus. 1864-80 / Syntype (BMNH).

The original description is based on an unspecified number of syntypes from Tenerife and La Palma (Wollaston, 1864), the possibility that additional syntypes exist cannot be ruled out. In order to fix the interpretation of the name and to secure the synonymy established here, one of the males in the Wollaston collection at the BMNH is designated as lectotype.

As was suspected earlier (Assing, 2000), a comparative study of the external and male sexual characters of the types of *O. sculpticolle*, additional Canarian material (Tenerife, Gran Canaria, La Palma, El Hierro), and of continental *O. excavatum* yielded no evidence that the Canarian populations should represent a distinct species. Adriano Zanetti (Verona), who was so kind as to examine some Canarian material I sent him, confirmed this view (Zanetti, pers. comm.). Specimens from the Canaries are on average slightly smaller and of lighter coloration than those from the European continent, but this should be interpreted as an expression of intraspecific variation.

***Lispinus impressicollis* Motschulsky, 1907**

Material examined: 4 exs., La Palma, La Grama, 12.IX.2000, Rafael G. B. (cGar, cAss).

This widespread species was previously known from Tenerife and Gran Canaria (Machado & Oromí, 2000). It is here reported from La Palma for the first time.

***Platystethus degener* Mulsant & Rey, 1879**

Material examined: 4♂♂, 4♀♀, La Gomera, Presa de la Palmita, 13.VII.2001, leg. García (cGar, cAss).

The presence of *P. degener* in La Gomera is here confirmed for the first time. The species had not been reported from the island before, but it seems most likely that all the Canarian records of *P. cornutus* (Gravenhorst) in fact refer to *P. degener*. I have never seen *P. cornutus* from the Canary Islands.

***Lobrathium anale* (Lucas, 1846)**

Lathrobium anale Lucas, 1846: 117.

Lathrobium multipunctatum [sic] var. β *canariensis* [sic] Wollaston, 1865: 502; **resyn.**

Lathrobium oviceps Fauvel, 1902: 181; **syn. n.**

Lobratium [sic] *ulbrichi* Coiffait, 1978: 269f.; **syn. n.**

Types examined:

L. canariense Wollaston: Lectotype ♂, present designation: Syntype / Canary Is. Tenerife T.V. Wollaston BM 1984-80 / Syntype *Lathrobium multipunctatum* Woll. [sic] / Lectotypus ♂ *Lathrobium multipunctum canariense* Wollaston desig. V. Assing 2001 / *Lobrathium anale* (Lucas) det. V. Assing 2001 (BMNH). Paralectotypes: 1♀: same labels as lectotype (BMNH); 1♀: same data, but "La Palma" (BMNH).

L. oviceps Fauvel: Holotype ♀: Iles Canaries, Palma, Coll. R. I. Sc. N. B., ex coll. Fauvel / *oviceps* Fvl. / Buchet 88 / TYPE / Coll. et det. A. Fauvel, *Lathrobium oviceps* Fvl., R.I.Sc.N.B. 17.479 (IRSNB).

Additional Canarian material examined: Tenerife: 1♀, Cueva de las Mechas, 19.IV.1985, leg. Oromí (cOro); 1♀, Los Rodeos, 24.XI.1984, leg. García (cGar).

Gran Canaria: 1♀, Tejeda, leg. Gaudin (cSch); 1♂, S El Cortijo, S Fontanales, 28°03´19N, 15°36´44W, 1120m, below *Rubus* and deciduous trees, 31.I.1998, leg. Zerche (DEI); 1♀, Bco. Azuaje, 27.XI.1988, leg. García (cGar); 1♂, Moya, 17.V.1959, leg. Fernández (cOro). **La Gomera:** 1♀, Hermigua, 28.XII.1971, leg. Oromí (cOro); 1♀, road Hermigua-Cedro, under stone, 28.X.1990, leg. Wunderle (cWun). **El Hierro:** 1♂, 1♀, Fuente Mancafite, 26.IV.1986, leg. Oromí (cOro).

The description of *Lathrobium multipunctum canariense* Wollaston (*multipunctatum* is an incorrect spelling) is based on an unspecified number of syntypes from Tenerife, La Gomera, and La Palma, so that more than the three syntypes indicated above may be assumed to exist. In order to fix the identity of this name and to secure the synonymy reestablished here, the male in the Wollaston collection housed at the BMNH is here designated as lectotype. Although Fauvel (1897, 1902) synonymized *L. multipunctum canariense* with *L. anale* based on the male sexual characters, most subsequent authors continued to treat *L. canariense* either as a (valid) subspecies of *L. multipunctum* (Gravenhorst) or as a synonym of that species (see references in Machado & Oromí, 2000). An examination of the male sexual characters of the lectotype, however, confirms the synonymy established by Fauvel (1897).

In the original description of *L. oviceps* Fauvel, which is based on "une seule ♀", Fauvel (1902) states that the species is distinguished from the otherwise similar *L. anale* by the more oviform shape of the head, by the smaller and less prominent eyes, and by the coarser and sparser puncturation of the central dorsal area of the head. A comparative study of the holotype of *L. oviceps*, of more recently collected material from El Hierro, Tenerife, La Gomera, and Gran Canaria, from Morocco, Algeria (type locality of *L. anale*), and southern Spain, as well as of material previously identified as *L. ulbrichi* Coiffait, including specimens from the type locality ("environs de Ronda") of that taxon, revealed, however, that these characters are subject to considerable intraspecific variation and that, based on the male primary and secondary sexual characters, both *L. oviceps* and *L. ulbrichi* are conspecific with *L. anale*. The specimens from the Canaries and continental Spain usually have a more distinct microreticulation near the anterior margins of the abdominal terga III-VI than those from North Africa, but this difference is insufficient evidence that these populations should represent a distinct species, especially in view of the similarities in the complex morphology of the male sexual characters. Consequently, both *Lobrathium oviceps* (Fauvel) and *L. ulbrichi* Coiffait are here placed in the synonymy of the senior name *Lobrathium anale* (Lucas).

In the Canary Islands, the presence of *L. anale* is here verified for Tenerife, Gran Canaria, La Gomera, La Palma, and El Hierro (see types and additional material examined). Coiffait (1954) additionally reports the species from Lanzarote.

***Astenus nigromaculatus* (Motschulsky, 1858)**

Astenus nigromaculatus var. *canariensis* Coiffait, 1971: 188f.

Astenus nigromaculatus canariensis: Hernandez *et al.* (1994), Machado & Oromí (2000).

Material examined: "Paratypes": 1♂: Canary Is. / Sharp Coll. 1905-313 / Muséum Paris 1985, Coll. H. Coiffait / Paratype (MNHNP). 1♀: Canaries / M.Cameron. Bequest B.M.1955-147. / Muséum Paris 1985, Coll. H. Coiffait / Allotype / *A.* (*Astenognathus*) *nigromaculatus* v. *canariensis* H. Coiffait det. 1970 (MNHNP).

According to Article 45.6.3 of the International Code (ICZN, 1999), *A. nigromaculatus* var. *canariensis*, which is distinguished from typical *A. nigromaculatus* by the absence of a dark elytral spot (Coiffait, 1971), was described as an infrasubspecific entity. It remains an unavailable name, despite the fact that Hernández et al. (1994) list *A. n. canariensis* as a subspecies. Consequently, the valid name for the Canarian population is *A. nigromaculatus* (Motschulsky).

Besides, it seems very doubtful that the population of *A. nigromaculatus* from Gran Canaria really represents a subspecies. The single distinguishing character is apparently not constant; Coiffait (1984) states that his var. *canariensis* replaces "presque totalement la forme typique" in the Canaries. In addition, I have seen material without elytral spots also from the eastern Mediterranean.

Leptacinus intermedius Donisthorpe, 1936

Material examined: 1♂, 1♀, 2 exs., La Palma, La Grama, 5.IX.2000, leg. García (cGar, cAss); 1 ex., La Grama, 20.VII.2000, leg. García (cGar); 2♂♂, Tenerife, Monte Verde, pigeon dung, 2.X.1965, leg. Benick (cAss); 1♂, Tenerife, Las Cañadas, 18.VII.1996, leg. Oromí (cAss); 2 exs., Gran Canaria, S. Agustín, pigeon dung, 5.V.1968, leg. Benick (cAss).

The species is here reported from Canary Islands (Tenerife, La Palma, Gran Canaria) for the first time. However, *L. intermedius* was treated as a synonym of *L. sulcifrons* (Stephens) by some authors (Coiffait, 1972), so some or all of the records of *L. sulcifrons* may in fact refer to *L. intermedius*.

Philonthus quisquiliarius (Gyllenhal, 1810)

Material examined: 2♂♂, 1♀, La Gomera, Presa de la Palmita, 13.VII.2001, leg. García (cGar, cAss).

P. quisquiliarius was previously known from Tenerife, Gran Canaria, and La Palma (Machado & Oromí, 2000); it is here recorded from La Gomera for the first time.

Ocypus canariensis Gemminger & Harold, 1868

Staphylinus (*Goerius*) *addendus* Lindberg, 1953: 4; **syn. n.**

Type examined: Holotype ♂: Gran Canaria, Tamadaba, 30.3.49, Lindberg / Mus. Zool. Helsinki N:o/5754 / *Staph. addendus* Lindb. / Mus. Zool. H:fors, Spec. typ. No 2587 *Staphyl. addendus* Har. Lindb. / Coll. Lindberg / *Ocypus canariensis* Gemm. & Har. det. V. Assing 2001 (ZMH).

In the original description of *Staphylinus addendus*, Lindberg (1953) states that the species is similar ("etwas ähnlich") to *Ocypus canariensis*, but does not specify any distinguishing characters whatsoever. This and the highly similar illustrations of the male sexual characters in Coiffait (1974) gave rise to the suspicion that the two taxa are in fact conspecific. A subsequent comparison of the holotype of *S. addendus* with material of *Ocypus canariensis* from various localities in Gran Canaria (Pinar de Tamadaba [type locality of *S. addendus*], Pozo de las Nieves, Bco. de la Virgen, Inagua, Los Berrazales) confirmed this suspicion, so that *S. addendus* Lindberg is here placed in the synonymy of *Ocypus canariensis* Gemminger & Harold. The record of *O. canariensis* (as *O. addendus*) from Hierro by Hernández *et al.* (1994) should be considered doubtful and is probably based either on a misidentification or a confusion of locality labels. It is highly unlikely that this short-winged species should be present on islands other than Gran Canaria, unless it was introduced to El Hierro in more recent days.

Oligota pusillima (Gravenhorst, 1806)

Material examined: 4 exs., La Palma, Las Caletas, 1.XI.1999, leg. García (cGar); 1♂, La Palma, La Caldera, 20.V.1997, leg. García (cAss); 1♂, La Palma, La Grama, 30.X.1999, leg. García (cGar).

In the Canarian archipelago, this widespread species was previously known only from Tenerife (Machado & Oromí, 2000). This is the first record from La Palma.

Trichiusa immigrata Lohse, 1984

Material examined: 2 exs., La Palma, La Caldera, 20.V.1997, leg. García (cAss, cGar).

T. immigrata, an adventive species probably from the Nearctic region, was only recently reported from the archipelago for the first time (Assing, 2000). This is the second Canarian record and the first record from La Palma.

Hydrosmecta longula (Heer, 1839)

Material examined: 5 exs., La Palma, Bco. Las Augustias, 16.X.2000, leg. García (cGar, cAss).

In Machado & Oromí (2000) the species is listed under the junior synonym *H. thinobioides* (Kraatz) (see Lohse, 1988). It is here reported from La Palma for the first time.

Atheta misella (Wollaston, 1864)

Meotica roudieri Jarrige, 1952: 137f., **syn. n.**

Type examined: Holotype ♂: 26.3.50. Los Rodeos (Tenerife), J. M. Fernandez / TYPE / Muséum Paris Ex Collection J. JARRIGE 1976 / *Meotica fernandezi* Jarr. / *Atheta misella* (Wollaston) det. V. Assing 2000 (MNHNP).

The holotype is conspecific with *Atheta misella* (Wollaston), a Canarian endemic known from El Hierro, Tenerife, and Gran Canaria (Assing, 2000), so that the following synonymy is established: *Atheta misella* (Wollaston) = *Meotica roudieri* Jarrige, syn. n.

Aleochara puberula Klugman, 1833

Material examined: 1 ex., La Palma, Juan Adalid, 17.I.1994, leg. García (cGar); 3 exs., La Palma, La Grama, 5.IX.2000, leg. García (cGar, cAss).

This is the first record of *A. puberula* from La Palma.

***Aleochara binotata* Kraatz, 1856**

Material examined: 5 exs., La Palma, La Grama, 17.III.1993, leg. García (cGar, cAss).

This widespread species, in the Canarian archipelago previously known only from Tenerife and Gran Canaria (Machado & Oromí, 2000), is here reported from La Palma for the first time.

RECENT TAXONOMIC CHANGES AFFECTING THE CANARIAN LIST OF STAPHYLINIDAE

Chloecharis Lynch Arribálzaga, 1884 is a junior synonym of *Hypomedon* Mulsant & Rey, 1878. The valid binomen of the species listed in Machado & Oromí (2000) as *Chloecharis debilicornis* is therefore *Hypomedon debilicornis* (Wollaston) (Duff, 1995).

The binomen of the species listed in the catalogue as *Philonthus sordidus* is now *Bisnius sordidus* (Gravenhorst). Similarly, the valid combination of the species recorded by Assing (2000) as *Philonthus parcus* is now *Bisnius parcus* (Sharp) (Herman, 2001).

Protogoerius brachypterus (Brullé, 1839) was recognized as a primary homonym and renamed by Smetana & Davies (2000). The valid name of this species is now *Protogoerius brullei* Smetana & Davies, 2000.

According to Smetana & Davies (2000), *Ocypus auricomus* (Lindberg, 1953) is a primary homonym, and the valid combination for this species is *Ocypus mateui* (Coiffait, 1954).

THE CANARIAN REPRESENTATIVES OF *Apteranopsis* Jeannel, *Atlantostiba* Pace, *Geostiba* Thomson, AND *Alevonota* Thomson

Six Canarian species are currently attributed to *Apteranopsis* Jeannel (Machado & Oromí, 2000). A preliminary examination of material of *A. outereloi* Gamarra & Hernández, *A. canariensis* Oromí & Martín, *A. hephaestos* Hernández & García, as well as of *Atlantostiba franzi* Pace and of two species doubtfully attributed to *Geostiba* Thomson in Machado & Oromí (2000), *G. franzi* (Palm) and *G. palmi* Franz, raised considerable doubts regarding the present generic assignments. The endogean species (*A. hephaestos*, *A franzi*, *G. palmi*, *G. franzi*) are highly similar not only in external appearance, but also in the morphology of the primary and secondary sexual characters. The five cavernicolous *Apteranopsis* species described from the Canaries are distinctly larger and have much more elongated body parts, but their general morphology and that of the genitalia are somewhat similar, if one allows for morphological changes resulting from an "adaptive stretching". These observations gave rise to the hypothesis that all these species form a monophyletic group and that the differences between the endogean and the cavernicolous species are a result of adaptive responses to their respective habitats. The assumption of a single colonization event with subsequent adaptive radiation would be more parsimonious and consequently more likely than two or more independent colonization events.

More suspicion regarding the correctness of the generic placement of Canarian *Apteranopsis* was aroused by the fact that all the non-Canarian *Apteranopsis* species occur in Algeria and Tunisia and have strongly reduced wings, eyes, and pigmentation. They have a subterranean habitat, and one of them is myrmecophilous. A taxon with such characteristics does not seem very likely to colonize a distant archipelago. When describing the first Canarian *Apteranopsis* species, Oromí & Martín (1984) compared it with most of the known species of the genus, but apparently did not carry out a comparative study of some characters which are highly significant in aleocharine systematics, especially the sexual characters and the mouthparts.

***Apteranopsis* Jeannel, 1959, stat. n.**

Jeannel (1959) originally included 7 species from North Africa in the genus and designated *Apteranillus lethierryi* Fauvel, 1898 as the type species. In order to clarify the identity and systematic affiliations of the genus, material of the type species, as well as of *Apteranopsis theryi* (Fauvel, 1898), *A. convexifrons* (Fairmaire, 1873), *A. villosus* (Peyerimhoff, 1909), and the myrmecophilous *A. foreli* (Wasmann, 1890) was studied; most of this material is deposited in the Fauvel collection at the IRSNB. Below, a detailed redescription of the type species and a concise redescription of *A. theryi* are provided.

***Drusilla (Apteranopsis) lethierryi* (Fauvel, 1898), comb. n.** (Figs. 1-5)

Apteranillus lethierryi Fauvel, 1898: 108.

Material examined: 1♀: Medeah / Lethierryi Fvl. / Coll. et det. Fauvel, Apteranillus, R.I.Sc.N.B. 17479 (IRSNB).

The original description is based on an unspecified number of syntypes from "Hammam-Rhira; plateau entre Médéah et Mouzaïa". The single specimen in the Fauvel collection is apparently no syntype, but was collected near the type locality.

Redescription:

4.5 mm. Head of similar shape as in *Drusilla canaliculata* (Fabricius), lateral margins distinctly diverging posteriad, maximal width near posterior margin; dorsal surface almost flat; posteriorly distinctly constricted, i. e. with distinct neck, vertex posteriorly abruptly and vertically sloping down towards neck; puncturation dense, relatively coarse, and well-defined; microsculpture very shallow, barely noticeable; eyes completely reduced; gular sutures separated; genal carinae pronounced; antenna long and slender; antennomere I clavate, about 3 times as long as wide, widest near apex; antennomere II distinctly shorter, little more than half the length of I, ± coniform; III very long and slender, >3 times as long as wide, almost 1.5 times as long as II; IV-X gradually increasing in width and gradually less slender, IV slightly more than twice as long as wide, X weakly oblong; XI about 2.5 times as long as wide, almost as long as the combined length of X and IX. Mouthparts as in Figs. 1-3.

Pronotum of similar shape as in *Drusilla canaliculata*, about 1.3 times as long as wide; puncturation very dense, distinct, and well-defined; median line shallowly impressed; lateral margins finely carinate; surface without appreciable microsculpture.

Basisternum large, much wider and broader than furcasternum, without carina; furcasternum with distinct median carina. Procoxae dorsoventrally flattened.

Elytra with very dense and coarsely granulose puncturation; at suture about half the length of pronotum. Mesosternum anteriorly with rudimentary median carina; posteriorly without distinct process, only obtusely angled, not distinctly reaching between mesocoxae; mesocoxal cavities delimited by distinct carina. Metasternal process on same level as mesosternum, apically broadly truncate, anteriorly extending between mesocoxae beyond the middle of cavities and reaching mesosternum. Metepisterna pronounced (as in *Drusilla*). Legs long and slender, metacoxae of broadly triangular shape, in apical half with latero-ventral carina; metatarsomere I slightly longer than II+III.

Abdomen much wider than forebody, widest at segment V; lateral dorsal margins of segments III-V very wide; terga III-V with very shallow and impunctate anterior impressions; puncturation coarse (much coarser than that of head and pronotum), slightly granulose, dense, and well-defined, towards apex gradually decreasing in density and size; microsculpture absent.

♀: posterior margin of tergite VIII broadly rounded, in the middle indistinctly concave; sternite VIII as in Fig. 4; spermatheca as in Fig. 5.

***Drusilla* (*Apteranopsis*) *theryi* (Fauvel, 1898), comb. n.** (Figs. 6-11)

Apteranillus theryi Fauvel, 1898: 109.

Types examined: Syntypes: 1♂, 1♀: Col des Oliviers près St. Charles 3 / Coll. et det. Fauvel, Apteranillus theryi Fauv., R.I.Sc.N.B. 17479 (IRSNB).

Additional material examined: 1♂: Bone / Coll. et det. Fauvel, Apteranillus theryi Fauv., R.I.Sc.N.B. 17479 (IRSNB).

Redescription:

Similar to *D.* (*A.*) *lethierryi*, but distinguished as follows:

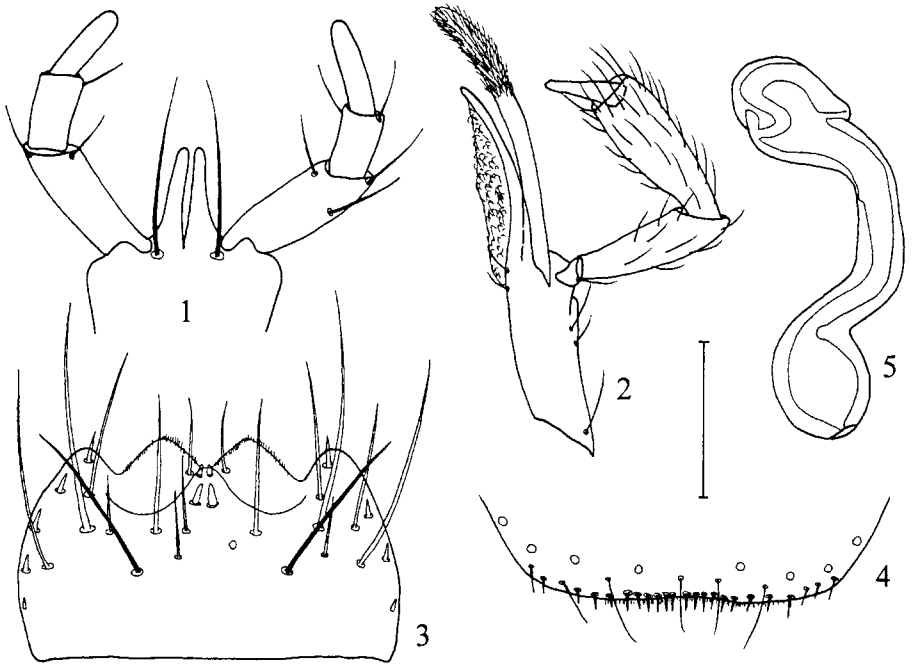
Smaller, 3.6 - 3.9 mm. Head with pronounced microreticulation, mat; punctures rather sparse, weakly granulose, rather fine; dorsal surface less flat, along median line slightly impressed. Antenna shorter and less slender; especially antennomeres I and III distinctly shorter, little more than twice as long as wide, XI distinctly shorter than IX+X.

Pronotum less slender, indistinctly oblong, in ♂ with deep and wide median furrow, increasing in depth and width posteriorly (similar to *Drusilla canaliculata*); in ♀ with deeper furrow than in *D. lethierryi*, but shallower and narrower than in ♂, not distinctly increasing in depth and width posteriorly; puncturation denser and coarsely granulose, somewhat rugose and similar to that of elytra. Basisternum posteriorly with carina; mesosternal process apically with short rudiment of carina.

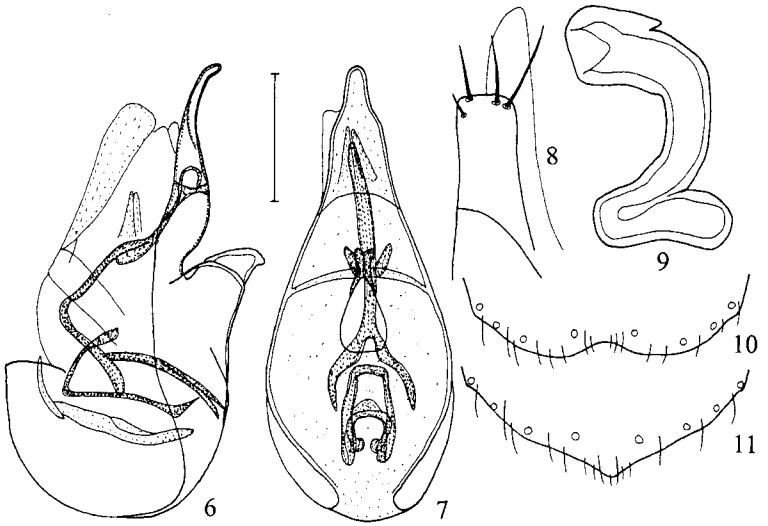
Elytra with coarse, very dense and granulose puncturation; at suture 0.65 times as long as pronotum.

Abdomen with denser, but somewhat finer puncturation gradually decreasing in density and size towards apex.

♂: posterior margin of tergite VIII in the middle concave (Fig. 10); posterior margin of sternite VIII broadly convex and with scattered fine short setae; morphology



Figs. 1 - 5: *Drusilla* (*Apteranopsis*) *lethierryi* (Fauvel). 1: labium; 2: maxilla; 3: labrum; 4: posterior margin of ♀ sternite VIII (pubescence and long setae partly omitted); 5: spermatheca. Scale: 1, 3, 5: 0.1 mm; 2, 4: 0.2 mm.



Figs. 6 - 11: *Drusilla* (*Apteranopsis*) *theryi* (Fauvel): 6, 7: median lobe of aedeagus in lateral and in ventral view; 8: apical lobe of paramere; 9: spermatheca; 10: posterior margin of ♂ tergite VIII; 11: posterior margin of ♀ tergite VIII; pubescence and long setae partly omitted in 10 and 11. Scale: 6, 7, 10, 11: 0.2 mm; 8, 9: 0.1 mm.

of aedeagus similar to that of *Drusilla canaliculata*; apical lobe of paramere apically truncate, velum of paramere projecting beyond apical lobe of paramere (Figs. 6-8).

♀: posterior margin of tergite VIII pointed posteriorly (Fig. 11); sternite VIII posteriorly distinctly concave and with row of dense stout modified setae; spermatheca as in Fig. 9.

Systematic conclusions

The examination of the external morphology, the mouthparts, and the sexual characters of five North African species of *Apteranopsis* and a comparison with *Drusilla canaliculata* (Fabricius), the type species of *Drusilla* Leach, revealed that *Apteranopsis* clearly belongs to the Lomechusini and that the relationship between the North African species attributed to this genus and *Drusilla canaliculata* is doubtlessly closer than that between *D. canaliculata* and many other species currently assigned to *Drusilla*, e. g. from the Eastern Palaearctic region. North African *Apteranopsis* species evidently differ from *D. canaliculata* in characters like eye size, pigmentation, etc., but these differences are easily explained as adaptive reductions resulting from an adaptation to a subterranean habitat. A transitional stage is displayed by *A. foreli*, which is apparently associated with ants of the genus *Aphaenogaster* and which looks like a pale stretched *Drusilla canaliculata* with small eyes. There is little doubt that if *Apteranopsis* were maintained as a distinct genus, this would render *Drusilla* a paraphyletic taxon, unless the latter were split up into numerous genera, which again would require a comprehensive phylogenetic revision. Therefore, *Apteranopsis* is here attributed to *Drusilla* as a subgenus, a solution that involves much fewer taxonomic and systematic changes. The resulting new binomina, in addition to those indicated above, are:

Drusilla (*Apteranopsis*) *convexifrons* (Fairmaire), comb. n.

Drusilla (*Apteranopsis*) *foreli* (Wasmann), comb. n.

Drusilla (*Apteranopsis*) *hipponensis* (Fauvel), comb. n.

Drusilla (*Apteranopsis*) *raffrayi* (Fairmaire), comb. n.

Drusilla (*Apteranopsis*) *villosus* (Peyerimhoff), comb. n.

The species of *Apteranillus* Fairmaire have not yet been revised. The systematic position of this taxon will have to be clarified in a future study, but it would not seem surprising if it, too, were closely related to *Drusilla*.

The Canarian species

Material examined

Apteranopsis outereloi: **Tenerife:** 3 exs., Cueva del Viento, V.1994, leg. Oromí; 3 exs.., Cueva del Sobrado, V.1994, leg. Oromí; 3 exs., Cueva del Sobrado Superior, 22.V.1999, leg. Oromí; 2 exs., Cueva de Breveritas, 26.VI.1999, leg. Oromí (cAss).

Apteranopsis canariensis: **Tenerife:** 10 exs., Cuevas Negras, 8.IV.1991, leg. Oromí; 1 ex., Cuevas Negras, 26.V.1991, leg. Martín; 2 exs., Cuevas Negras, 30.X.1999, leg. GIET (cAss).

Apteranopsis tanausui: see below.

Apteranopsis palmensis: see below.

Apteranopsis junoniae: **La Palma:** 1 ex., Llano los Caños, 17.V.1995, leg. García (cGar).

Apteranopsis hephaestos: **La Palma:** 116 exs., see Assing & Wunderle (1999); 2 exs., Santa Cruz de La Palma, road to Roque de los Muchachos, 900m, 17.III.1992, leg. Zerche (DEI).

Geostiba palmi: **La Palma:** 1 paratype ♀: "Isla de La Palma, lg. H. Franz / Tunnel bei Barlovento / *Geostiba palmi* m. PARATYPUS" (DEI); 21 exs., see Assing & Wunderle (1999).

Geostiba muscicola: **Gran Canaria:** 1387 exs., numerous localities (cAss).

Geostiba lanzarotensis: **Lanzarote:** 6 exs., El Risco (cAss).

Sipalia franzi: see below.

Atlantostiba franzi: see below.

Alevonota sollemnis: **La Gomera:** see Assing (1999).

Generic affiliations

A comparative study of all the Canarian representatives previously attributed to *Geostiba*, *Atlantostiba*, *Apteranopsis*, and *Alevonota* yielded the following results:

Only *G. muscicola* (Wollaston) and *G. lanzarotensis* (Palm) are true *Geostiba*. *G. franzi* (Palm) and *G. palmi* Franz are not congeneric with these species.

All the Canarian species described in *Apteranopsis* belong to the Athetini, not the Lomechusini; they are clearly not congeneric with *Drusilla* (*Apteranopsis*) *lethierryi* and the other North African species of *Apteranopsis*. The Canarian species are distinguished from true *Apteranopsis* by numerous significant characters, the most important of which may be summarized as follows:

Head not wedge-shaped, posteriorly without neck; vertex posteriorly flatter, gradually sloping down towards hind margin; puncturation of whole body much finer. Mouthparts: lacinia and galea much shorter and of different morphology; labrum and ligula of different shape and chaetotaxy; mandibles more slender. Ventral aspect: basisternum shorter; mesosternum posteriorly with more distinct and more acute process; metasternum not extending between mesocoxae, not at same level as mesosternum, more or less fused with mesocoxal cavities. Procoxae not dorso-ventrally flattened, and with distinct latero-ventral carina; metacoxae in apical half without latero-ventral carina. Abdomen with narrower lateral dorsal margins and with fine puncturation. Genitalia of completely different morphology; apical lobe of paramere not truncate apically and of different chaetotaxy; velum of paramere not distinctly projecting beyond apical lobe of paramere.

Atlantostiba franzi Pace is highly similar to and doubtlessly congeneric with *G. franzi*, *G. palmi*, and *Apteranopsis hephaestos* Hernández & García.

Alevonota sollemnis Assing is in many respects similar to the species listed in the preceding paragraph, but is more closely related to the continental *Alevonota rufotestacea* (Kraatz) and allied species (see discussion in Assing, 1999).

A. junoniae, *A. tanausui*, *A. canariensis*, and *A. outereloi* at first glance strikingly differ from *G. palmi*, *G. franzi*, *A. franzi*, *A. hephaestos* not only by larger size, longer appendages, and more slender build, but also by the following characters: prosternum elongated posteriad, prosternal suture between basisternum and furcasternum obsolete; metasternum short, mesocoxal cavities extending almost to posterior margin of metasternum. However, all these differences can be explained as adaptive changes associated with the completely different habitat requirements of the two assemblages. As can be inferred from external morphology and collection data, the former (hereafter classified as "cavernicolous") inhabits caves and larger crevices, whereas the latter primarily inhabits endogean strata with smaller crevices (here classified as "endogean"). In characters less subject to such adaptive changes, i. e. the mouthparts and the sexual characters, especially the morphology of the aedeagus and the spermatheca, they are very similar. No evidence could be found suggesting that all these species together should not form a monophylum.

Interestingly, similar trends can be observed in North African *Apteranillus*. In the cavernicolous *Apteranillus rotroui* (Scheerpeltz, 1935), the neck is shorter than in its endogean congeners, the pronotum and the prosternum are elongated, the prosternal suture is obsolete, the mesocoxae almost reach the posterior margin of the metasternum, and the mesocoxal cavities are not delimited from the metasternum by a carina.

A basic difficulty results from the fact that many (if not most) athetine taxa lack evident (i. e. noticeable for the human eye) synapomorphies. The same applies here: it is not so much the presence of synapomorphic character states that support the monophyly of this species group, but an overall similarity of the mouthparts and the sexual characters.

Remarkably, the distribution of this species group is confined to Tenerife (2 cavernicolous and 3 endogean species) and to La Palma (2 cavernicolous and 2 endogean species). Basically, there are two possible evolutionary scenarios. Either the cavernicolous species together form the adelphotaxon of all the endogean species, or the species of each of the islands form monophyla. Both hypotheses would assume a colonization of one island (probably the geologically much younger La Palma) from another (Tenerife). From a biogeographic point of view, the former hypothesis seems less likely since it would require at least two independent colonization events by flightless ancestors. If the latter were true, however, this would be an example of surprisingly parallel adaptive radiation at an enormous speed.

As has been shown above, the species in question can neither be attributed to *Geostiba* nor to *Apteranopsis* and are here hypothesized to represent a monophylum. The only genus group name available is *Atlantostiba* Pace, 1994. However, it has been demonstrated for other larger Canarian monophyletic taxa of Staphylinidae, e. g. *Metopsia* Wollaston, *Othius* Stephens, and some subgenera of *Oxypoda* Mannerheim (Assing 1998, Zerche 1996, 1998), that their adelphotaxa occur in the Western Palaearctic region, and - at least in the Staphylinidae - endemic genera are the exception. The recent discovery of the Gomeran endemic *Alevonota sollemnis*, which is characterized by intermediate stages of an adaptation to an endogean habitat, inspired the hypothesis that the Canarian species previously attributed to *Apteranopsis*, *Atlantostiba*, and *Geostiba* (only *G. palmi* and *G. franzi*) are, in fact, morphologically derived *Alevonota* Thomson. A comparative study of characters not particularly prone to morphological changes due to adaptive responses to a highly specialized habitat, especially the mouthparts and the sexual characters, indeed confirmed this hypothesis. Apart from some obvious autapomorphies, no significant differences were observed in the morphology of the ligula, labrum, maxilla, and the aedeagus. Most of all, striking similarities were found in the shape of the spermatheca (see Figs. 14-16, 19, 20, 22 and the illustrations in Assing (1999)). The female genitalia have proved to be highly distinctive and of high systematic significance on the generic level in Athetini, e. g. *Callicerus*, *Pseudosemiris*, and *Aloconota* (Assing, 2001).

As is the case in many other athetine genera, the current systematic concept of *Alevonota* is based on such weakly defined characters as the slender build of the body, especially the shape of the abdomen, the short and stout antennae with transverse antennomeres IV - X, short tarsi, the shape of the head and the ligula, and the isodiametric microsculpture of the forebody. Distinct and clear-cut synapomorphies are unknown. A revision of the *Alevonota* species of the Palaearctic region is planned (Assing & Wunderle, in prep.). Preliminary studies have shown that the spermatheca is of great systematic value, but have also raised some doubt that such evident synapomorphies will be found.

Important evidence also comes from the life history of *Alevonota*. Judging from what is known about the habits of some continental species, the genus represents a particularly likely candidate for a colonization of islands and subsequent adaptation to an endogean habitat. *A. rufotestacea* (Kraatz) and *A. egregia* Rye, for instance, are mostly collected on the wing (usually with car-nets or flight interception traps during a relatively short period in spring), which suggests high dispersal power, but they apparently reproduce in a subterranean habitat. Microphthalmous species of *Alevonota* have become known also from southern Italy (*A. crypticola* Pace) and from Malta (*A. melitensis* Pace) (Pace, 1977, 1999). As can be inferred from the description and especially from the illustrations, at least *A. crypticola* appears to be closely related to *A. rufotestacea*.

Based on the arguments outlined above, the following systematic and taxonomic changes are proposed:

a) All the Canarian species previously attributed to *Apteranopsis* and *Atlantostiba*, as well as *Sipalia franzi* Palm and *Geostiba palmi* Franz are transferred to the athetine genus *Alevonota* Thomson.

b) *Alevonota* Thomson, 1858 = *Atlantostiba* Pace, 1994, **syn. n.**

c) For *Atlantostiba franzi* Pace, 1994, which is a secondary junior homonym of *Alevonota franzi* (Palm, 1976), a replacement name is proposed: *Alevonota pacei* **nom. n.**

***Alevonota tanausui* (Hernández & Martín, 1990), comb. n.**

Apteranopsis tanausui Hernández & Martín, 1990: 587ff.

Apteranopsis palmensis Hernández & Martín, 1990: 586 f.; **syn. n.**

Types examined:

A. tanausui: Paratypes [all types in poor condition, partly dissected, with various body parts missing]: 1♀: La Palma, Cueva los Palmeros, 11-IX-86, GIET Martín leg. / P-PA-92 / ♀ / Alotypus [sic] *Apteranopsis tanausui* n. sp. Hernández. & Martín / *Alevonota tanausui* Hernández & Martín, det. V. Assing 2001; 2♂♂: same labels, but "♂ / Paratypus ..."; 1♀, same labels, but "... 11-8-86... / ♀" (ULL).

A. palmensis: Holotype ♀ [in poor condition, dissected, with various body parts missing]: La Palma, Cueva Todoque, 18-8-86, J. L. Martín leg., P-TO-6 / Holotypus *Apteranopsis palmensis* n. sp. Hernández. & Martín des. / *Alevonota tanausui* Hernández & Martín det. V. Assing 2001 (ULL).

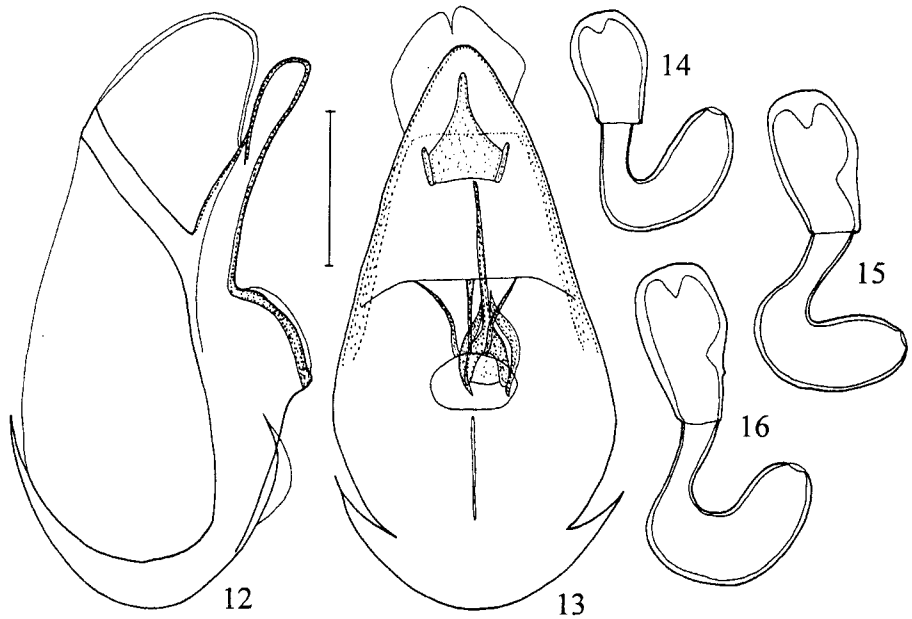
Additional material examined: 1 ex., La Palma, Cueva de los Palmeros, 9.XII.2000, GIET (ULL); 1 ex., La Palma, Cueva de los Caños, 25.XI.2000, GIET (ULL); 2 exs., La Palma, Cueva del Ratón, 7.XII.2000, GIET (ULL, cAss); 1 ex., Llano los Caños, 16.IV.1996, leg. García (cAss); 15 exs., Fuente La Canaria, 10.XI.1994, leg. García (cAss).

According to the original descriptions of *A. tanausui* and *A. palmensis*, they are distinguished by the relative lengths of antennomeres IV and X and of the metatarsomeres I and IV+V, as well as by the shape of the spermatheca. A comparative study of the types listed above and of additional material from Fuente La Canaria, Llano los Caños, Cueva del Ratón, Cueva de los Palmeros, and Cueva de los Caños, however, revealed no convincing evidence of the presence of two species. The relative lengths of the antennomeres and metatarsomeres are variable (even among the types of *A. tanausui*), and the illustration of the spermatheca of *A. tanausui* in Hernández & Martín (1990) is based on an artefact. The spermatheca is of the same morphology as that illustrated for *A. palmensis*, but was malformed probably in the course of dissection (duct flattened, twisted, and impressed). Since no other differences were found suggesting that *A. tanausui* and *A. palmensis* are distinct species, the former is here designated as the senior name and the latter is placed in the synonymy of that species: *Apteranopsis tanausui* Hernández & Martín, 1990 = *A. palmensis* Hernández & Martín, 1990, **syn. n.**

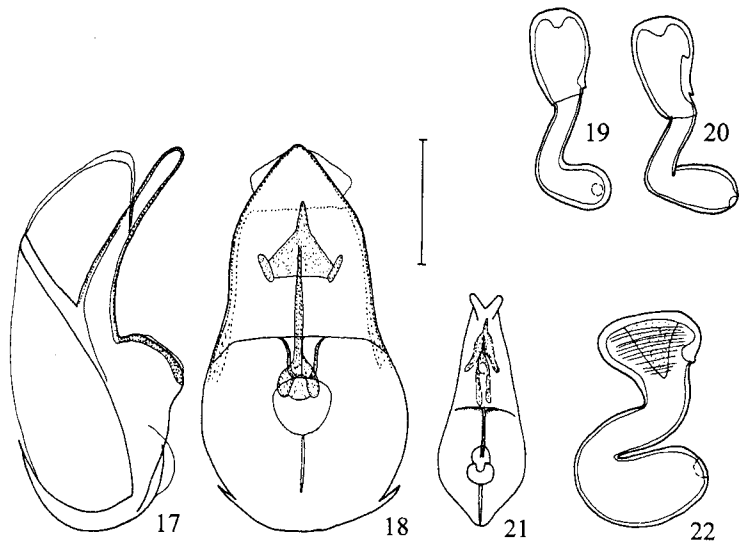
***Alevonota oromii* sp. n.** (Figs. 12-16, 24, 26)

Holotype ♂: Tenerife, Jun 94, Cueva Sobrado, P. Oromí / Holotypus ♂ *Alevonota oromii* sp. n., det. V. Assing 2001 (ULL).

Paratypes: 4 exs.: same data as holotype (cAss, ULL); 4 exs. in alcohol vials: same data, but V. 1994 (ULL, cAss); 2 exs. in alcohol vials: same data, but M. Arechavaleta leg. (ULL); 2 exs.: Tenerife, VI-94, C. Sobrado, GIET P. Oromí leg. (ULL); 2 exs.: Tenerife, 7-12-99, Sobrado Superior [sample no.], GIET (ULL); 1 ex.: same data, but 30.X.1999 (ULL); 2 exs.: same data, but 21.V.1999 (ULL); 1 ex.: same data, but 22.V.1999 (ULL); 1 ex. + 4 exs. in alcohol vials: Tenerife, V-94, C. del Viento, P. Oromí (ULL, cAss); 1 ex. in alcohol vial: same data, but M. Arechavaleta leg. (ULL); 1 ex.: Tenerife, Palo Blanco, 11-3-1986, A. Aguiar (TFMC); 1 ex.: Tenerife, Palo Blanco, 5-3-1985, A. Aguiar (cAss); 13 exs.: Tenerife, Palo Blanco, 1-11-1985, A. Aguiar (TFMC, cAss).



Figs. 12-16: *Alevonota oromii* sp. n.: 12, 13: median lobe of aedeagus in lateral and in ventral view; 14-16: spermathecae of ♀♀ from Palo Blanco (14) and Cueva Sobrado (15, 16). Scale: 12, 13: 0.1 mm; 14-16: 0.08 mm.



Figs. 17-22: *Alevonota franzi* (Palm) (17-20), *A. pacei* nom. n. (21), and A. *hephaestos* (Hernández & García) (22): 17, 18: median lobe of aedeagus in lateral and in ventral view; 19, 20, 22: spermathecae; 21: median lobe of aedeagus in ventral view. Scale: 17, 18, 21, 22: 0.1 mm; 19, 20: 0.08 mm.

Description

2.3 - 3.5 mm (abdomen extended). Externally extremely similar to *A. franzi*, distinguished only by the slightly wider abdomen (in *A. franzi* <1.1 times as wide as maximal width of elytra) and by the primary and secondary sexual characters.

Coloration testaceous to reddish yellow, appendages pale yellow. Forebody with distinct, abdomen with slightly weaker microreticulation.

Head oviform, slightly longer than wide (length measured from anterior margin of clypeus); eyes completely reduced; antenna distinctly incrassate apically, antennomere IV weakly transverse, V-X increasing in width and increasingly transverse, X approximately 2.5 times as wide as long.

Pronotum approximately as wide as long and 1.10 - 1.18 times as wide as head; maximal width in anterior half; posterior angles weakly marked.

Elytra approximately 1.15 times as wide and at suture approximately 0.6 times as long as pronotum; hind wings completely reduced.

Abdomen in normal preparation moderately dilated posteriad, at segments V - VI approximately 1.15 times as wide as maximal width of elytra.

♂: sternite VIII broadly convex posteriorly (Fig. 24); median lobe of aedeagus as in Figs. 12-13.

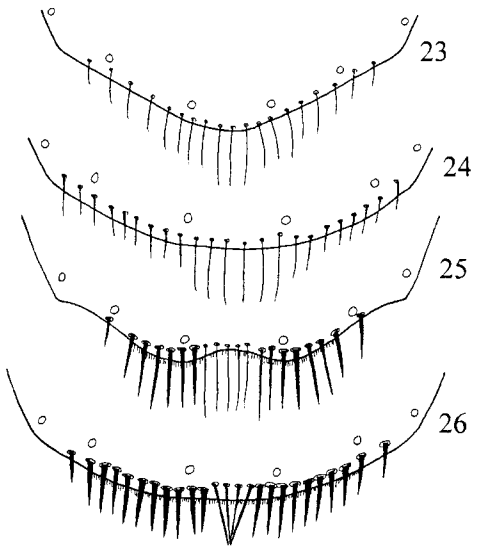
♀: posterior margin of sternite VIII weakly convex, in the middle at most very indistinctly concave, and with row of about 20 very stout modified setae, in the middle with a few somewhat longer and more slender setae (Fig. 26); spermatheca with proximally distinctly enlarged duct (Figs. 14-16).

Etymology: It is a great pleasure for me to dedicate this species to Pedro Oromí, La Laguna, who has been of great assistance on many occasions, who has committed himself to the exploration of Canarian Coleoptera, and who collected part of the type series.

Intraspecific variation: The specimens from Palo Blanco are on average smaller and have a slightly smaller aedeagus and spermatheca (Fig. 14). Since no additional constant distinguishing characters were found, however, these differences are interpreted as an expression of intraspecific variation rather than as evidence that the population from Palo Blanco represents a distinct species. Evidently, gene flow is bound to be strongly reduced in an endogean population as compared to more mobile epigeic species.

Phylogenetics and comparative notes: Both the similarity in morphological characters and the distributions suggest that *A. oromii* and *A. franzi* are adelphotaxa. For separation of these two species see description above. Other Tenerifan species are either much smaller and less slender (*A. pacei*) or distinctly larger and have much longer and more slender legs and antennae (*A. outereloi*, *A. canariensis*). *A. hephaestos* and *A. palmi* from La Palma are similar in size, coloration, and general appearance, but distinguished from both *A. franzi* and *A. oromii* by a more oblong head, a more slender pronotum, narrower elytra, a wider abdomen (in relation to forebody), and by the sexual characters.

Distribution and bionomics: *A. oromii* has been collected in three localities in the northwest of Tenerife. Its known distribution ranges from the Valle de la Orotava in the east to the area south of Icod de los Vinos in the west. Although most, if not all the types were found in caves (the circumstances of collection are unknown for the specimens from Palo Blanco), the external morphology of the species and the ecological data available for the closely related *A. franzi* suggest that the true habitat of *A. oromii* is probably an endogean stratum with predominantly very small crevices.



Figs. 23-26: *Alevonota franzi* (PALM) (23, 25) and *A. oromii* sp. n. (24, 26): 23, 24: posterior margin of ♂ sternite VIII; 25, 26: posterior margin of ♀ sternite VIII; pubescence and long setae partly omitted. Scale: 0.1 mm.

***Alevonota franzi* (Palm, 1976), comb. n.** (Figs. 17-20, 23, 25)

Sipalia franzi Palm, 1976: 71f.

Type examined: Holotype ♀: Tenerife, Umg. Erjos / Holotypus / *Sipalia franzi* Palm Det. Th. Palm. / 119 (coll. Franz).

Additional material examined: Tenerife: 4 exs., same locality label as holotype, leg. Franz (DEI, cAss); 1 ex., Monte de Erjos, lg. H. Franz (DEI); 2 exs., Teno, near Erjos, 900m, 10.IV.1992, leg. Assing (cAss); 4 exs., Teno, 28°19´29N, 16°49´20W, 850m, 28.III.2000, leg. Lompe (cAss); 2 exs., same data, but 29.III. (cAss); 2 exs., same data, but 1.IV. (cAss); 1 ex., Teno, W Erjos, Mte. de Aguas, 28°29´31N, 16°48´59W, 24.III.2000, leg. Lompe (cAss); 2 exs., Mte los Silos, 16.I.1986, leg. Aguiar (ULL); 2 exs., same data, but 29.I.1985 (ULL, cAss); 1 ex., Teno, Mte. de Aguas, W Erjos, 900m, 8.IV.1992, leg. Zerche (DEI).

Since the male sexual characters were previously unknown and the original description provides only a minute and rough sketch of the spermatheca, the genitalia of both sexes are here described:

♂: sternite VIII strongly convex, almost pointed posteriorly (Fig. 23); aedeagus as in Figs. 17-18.

♀: posterior margin of sternite VIII projecting and in the middle distinctly concave, with a row of little more than ten very long and moderately stout marginal setae, in the middle with a few thin long setae (Fig. 25); spermatheca small and proximally with weakly enlarged duct (Figs. 19-20).

Distribution and bionomics: The species is apparently confined to the Teno range in the northwest of Tenerife, where almost all of the specimens examined were sifted from deep leaf litter in the laurisilva.

***Alevonota pacei* nom. n.** (Fig. 21)

Atlantostiba franzi Pace, 1994: 74f.

Type examined: Holotype ♀: Anagageb., Tenerife, lg. H. Franz / Holotypus *Atlantostiba franzi* m., det. R. Pace 1989 / *Atlantostiba franzi* gen. et sp. n. det. R. Pace 1989 (Naturhistorisches Museum Wien).

Material examined: Tenerife: 8 exs., Anaga, Chinobre, 13.IV.1992, leg. Assing; 2 exs., Bco Ijuana, 23.X.1985, leg. Aguiar (cAss)

Since both *Atlantostiba franzi* and *Sipalia franzi* are here transferred to *Alevonota*, the former is a junior secondary homonym of the latter, and the *A. pacei* nom. n. is here proposed to replace *Atlantostiba franzi*.

The original description of *A. franzi* is based on a single female. The previously unknown aedeagus is shown in Fig. 21. For illustrations of other body parts see Pace (1994).

A. pacei is readily distinguished from all other Canarian congeners by its much smaller size, its less slender body, and by the sexual characters. Its known distribution is confined to the Anaga range in Tenerife, where it was found by sifting deep layers of leaf litter and by soil washing. Its small body suggests that its endogean habitat is characterized by smaller crevices than the habitats of *A. palmi*, *A. hephaestos*, *A. franzi*, and *A. oromii*.

Synonymic catalogue of the Canarian species of *Alevonota* Thomson

binomen	original genus	distribution	habitat[1)]
Alevonota franzi (Palm, 1976), comb. n.	*Sipalia*	Tenerife	endogean
Alevonota palmi (Franz, 1981), comb. n.	*Geostiba*	La Palma	endogean
Alevonota hephaestos (Hernández & García, 1989), comb. n.	*Apteranopsis*	La Palma	endogean
Alevonota pacei nom. n. = *A. franzi* (Pace, 1994)	*Atlantostiba*	Tenerife	endogean
Alevonota oromii sp. n.	*Apteranopsis*	Tenerife	endogean
Alevonota canariensis (Oromí & Martín, 1984), comb. n.	*Apteranopsis*	Tenerife	cavernicolous
Alevonota outereloi (Gamarra & Hernández, 1989), comb. n.	*Apteranopsis*	Tenerife	cavernicolous
Alevonota tanausui (Hernández & Martín, 1990), comb. n. = *A. palmensis* (Hernández & Martín, 1990)	*Apteranopsis* *Apteranopsis*	La Palma	cavernicolous
Alevonota junoniae (Hernández & Martín, 1990), comb. n.	*Apteranopsis*	La Palma	cavernicolous
Alevonota sollemnis Assing, 1999	*Alevonota*	Gomera	endogean

[1)]: see comments in text

ACKNOWLEDGEMENTS

I am most grateful to all the colleagues listed in the material section for the loan of material. In particular, I would like to thank Pedro Oromí and Rafael (Felo) García for their kind assistance and for the generous gift of specimens of some of the species previously attributed to *Apteranopsis*, which were of special significance for the present study.

REFERENCES

ASSING, V. (1998). A revision of *Othius* STEPHENS of the Atlantic Islands. III: Further records, new species, phylogenetics, and colonization (Insecta, Coleoptera, Staphylinidae: Xantholininae). - *Reichenbachia* 32: 213-224.

ASSING, V. (1999). On the Staphylinidae of La Gomera (Canary Islands), with descriptions of four new species (Coleoptera). - *Beitr. Ent. Berlin* 49: 343-356.

ASSING, V. (2000). On the Staphylinidae of El Hierro, with additional new records from the Canary Islands (Coleoptera). - *Entomol. Z.* 110: 114-118.

ASSING, V. (2001): A revision of *Callicerus* GRAVENHORST, 1802, *Pseudosemiris* MACHULKA, 1935, and *Saphocallus* SHARP, 1888 (Coleoptera: Staphylinidae, Aleocharinae, Athetini). - *Beitr. Ent. Keltern* 51: 247-334.

ASSING, V. & P. WUNDERLE (1999). On the Staphylinidae of La Palma, Canary Islands, with descriptions of new species and remarks on some Canarian *Stenus* LATREILLE (Coleoptera). - *Entomol. Z.* 109: 433-443.

COIFFAIT, H. (1954). Contribution à la connaissance des Staphylinides des Canaries: Récoltés de J. Mateu. - *Arch. Inst. Aclim. Almería* 2: 161-177.

COIFFAIT, H. (1971). Nouveaux *Astenus* de la région paléarctique occidentale. - *Nouv. Rev. Ent.* 1: 177-199.

COIFFAIT, H. (1974). Coléoptères Staphylinides de la région paléactique occidentale. II. Sous famille Staphylininae. Tribus Philonthini et Staphylinini. - *Nouv. Rev. Ent. Suppl.* 4 (2): 1-593.

COIFFAIT, H. (1978). Staphylinides nouvaux ou mal connus de la France et de la région méditerranéenne. - *Nouv. Rev. Ent.* 8: 267-279.

COIFFAIT, H. (1984). Coléoptères Stapyhlinidae de la région paléarctique occidentale. V. Sous famille Paederinae Tribu Paederini 2, Sous famille Euaesthetinae. — *Nouv. Rev. Ent. Suppl.* 13 (4): 1-424.

DUFF, A. G. (1995). On the genus of *Hypomedon debilicornis* (WOLLASTON) (Staphylinidae). - *Coleopterist* 4: 6.

FAUVEL, A. (1897). Catalogue des Staphylinides de la Barbarie et des Îles Açores, Madères, Salvages et Canaries. - *Revue d'Entomologie* 16: 237-371.

FAUVEL, A. (1898). Catalogue des Staphylinides de la Barbarie et des Îles Açores, Madères, Salvages et Canaries. Supplément. Description des espèces nouvelles. - *Revue d'Entomologie* 17: 93-113.

FAUVEL, A. (1902). Catalogue des Staphylinides de la Barbarie, de la Basse-Égypte et des Îles Açores, Madères, Salvages et Canaries. - *Revue d'Entomologie* 21: 45-189.

HERMAN, L. H. (2001). Catalog of the Staphylinidae (Insecta: Coleoptera). 1758 to the end of the second millennium. Volumes I-VII. - *Bull. Am. Mus. Nat. Hist.* 265: 1-4218.

HERNÁNDEZ, J. J. & J. L. MARTÍN (1990). Tres nuevas especies de *Apteranopsis* (Coleoptera: Aleocharidae) troglobias de la isla de La Palma (Canarias). - *Annls. Soc. ent. Fr. (N. S.)* 26: 585-594.

HERNÁNDEZ, J. J., R. OUTERELO & P. GAMARRA (1994). A preliminary list of Canarian Staphylinidae (Coleoptera). - *Vieraea* 23: 183-202.

ICZN (1999). International Code of Zoological Nomenclature. Fourth Edition. London: XXIX + 306 pp.

JARRIGE, J. (1952). Brachélytres nouveaux ou mal connus de la faune circamédeterranéenne. - *Annls. Soc. ent. France* 119 (1950): 117-139.