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The terrestrial Isopoda of Corsica (Crustacea, Oniscidea)

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Abstract. — Seventy-six species of terrestrial isopods are recorded from Corsica. Eight species (*Oritoniscus punctatus*, *Tiroloscia montana*, *Platyarthrus corsicus*, *Cylisticus uncinatus*, *Alloschizidium campanellii*, *Armadillidium lanzai*, *A. littorale* and *A. torchiai*) are described as new and twelve are newly recorded from the island. The subspecies *Oritoniscus paganus paganus* Racovitza and *O. paganus ocellatus* Vandel are raised to species rank. *Phalloniscus pygmaeus* (Budde-Lund) is transferred to the genus *Sardoniscus* Arcangeli, and *Paraschizidium remyi* Vandel and *Typhloschizidium cottarellii* Argano & Pesce to the genus *Alloschizidium* Verhoeff, of which *Typhloschizidium* Arcangeli and *Nesolidium* Verhoeff are considered to be junior synonyms. About half of the species have a West-Mediterranean distribution, the majority being strictly Tyrrhenian (38%). About 25% of the species are endemic, which demonstrates the importance of Corsica as a speciation area. The oniscidean fauna of Corsica is strictly related to that of the Tuscan Archipelago and, to a lesser extent, to that of Sardinia. Some important faunistic affinities exist with southern France (massifs of Maures and Estérel, and the Grasse region) and the Pyrénées. No species of southern origin (Sicilian or North African) has been collected in Corsica, which seems to exclude a zoogeographic relationship with those regions. The distribution of the species within Corsica is discussed. A key to all the species is given.

Key-words. — Crustacea, Isopoda, Oniscidea, taxonomy, new species, zoogeography, Corsica.

Les isopodes terrestres de Corse (Crustacea, Oniscidea)

Résumé. — Soixante-seize espèces d'isopodes terrestres sont signalées de Corse. Huit espèces nouvelles (*Oritoniscus punctatus*, *Tiroloscia montana*, *Platyarthrus corsicus*, *Cylisticus uncinatus*, *Alloschizidium campanellii*, *Armadillidium lanzai*, *A. littorale* et *A. torchiai*) sont décrites et douze sont nouvellement citées de l'île. Les sous-espèces *Oritoniscus paganus paganus* Racovitza et *O. paganus ocellatus* Vandel sont élevées au rang d'espèce. *Phalloniscus pygmaeus* (Budde-Lund) est transféré dans le genre *Sardoniscus* Arcangeli, *Paraschizidium remyi* Vandel et *Typhloschizidium cottarellii* Argano & Pesce dans le genre *Alloschizidium* Verhoeff, dont *Typhloschizidium* Arcangeli et *Nesolidium* Verhoeff sont des synonymes plus récents. La moitié environ des espèces a une distribution Ouest-méditerranéenne, la plupart étant strictement tyrrhénienne. A peu près 25 % des espèces sont endémiques, ce qui prouve l'importance de la Corse en tant que zone de spéciation. Les caractères de la faune des isopodes terrestres de Corse montrent une stricte corrélation avec les caractères de la faune de l'archipel toscan et, à un degré moindre, avec ceux de la Sardaigne. Des affinités faunistiques importantes existent entre la Corse et la France méridionale (massifs des Maures et de l'Estérel et région de Grasse) et aussi avec les Pyrénées. Aucune espèce d'origine plus méridionale (sicilienne ou nord-africaine) n'a été recueillie en Corse, ce qui semble exclure toute relation zoogéographique avec ces territoires. La distribution des espèces en Corse est aussi discutée. Une clé des espèces est proposée.

Mots-clés. — Crustacea, Isopoda, Oniscidea, taxonomie, espèces nouvelles, zoogéographie, Corse.

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INTRODUCTION

The terrestrial isopods from Corsica, as well as from many islands in the western Mediterranean, are apparently well known, thanks to the work of VANDEL who provided an important picture of the oniscidean population of the island in several contributions (1944a, 1944b, 1945, 1953a, 1954a, 1954b, 1954c, 1960, 1962, 1968a). Moreover, the Oniscidea from many Corsican caves have been thoroughly investigated by BERON (1972a, 1972b). However, the systematics of this group of crustaceans has changed markedly in recent years, becoming more precise and reliable, and the study of limited collections has already provided interesting results, with the description of a new genus, two new species and the report of a new form for the island (TAITI & FERRARA 1980; FERRARA & TAITI 1983). Therefore, we believed it appropriate to carry out the most complete study possible of the terrestrial isopod fauna of Corsica.

Most of the material studied was collected during six expeditions of the Centro di Studio per la Faunistica ed Ecologia Tropicali, C.N.R., Florence, which covered most of the island and its characteristic biotopes. Material deposited in the following institutions has also been examined: Muséum national d'Histoire naturelle, Paris (MNHN); Staatliches Museum für Naturkunde, Stuttgart (SMNS); National Natural History Museum, Sofia; Museo Civico di Storia Naturale, Verona (MV), and Dipartimento di Biologia Evolutiva dell'Università, Siena. Specimens collected during some expeditions of the Museo Zoologico "La Specola" dell'Università, Florence (MZUF), on many of the islets surrounding Corsica (LANZA & POGGESI 1986) have also been studied.

Family TYLIDAE
Genus **TYLOS** Audouin, 1826

Tylos europaeus Arcangeli, 1938
(Fig. 1)

?*Tylos latreillei*; VANDEL 1954a: 73.
Tylos europaeus; GIORDANI SOIKA 1954: 75.
Tylos latreillei europaeus; VANDEL 1960: 108, fig. 48A-C.

MATERIAL EXAMINED. — 13 ♂♂, 6 ♀♀, 1 juv., Calzarello (near Ghisonaccia), beach, leg. S. Taiti and S. Campanelli, 18.X.1982.

PREVIOUS RECORDS. — Porto-Vecchio (GIORDANI SOIKA 1954); Corsica (VANDEL 1954a).

DISTRIBUTION. — This littoral species is known with certainty from the coasts of the whole Mediterranean Sea and the Atlantic coasts of Europe as far north as Brittany (GIORDANI SOIKA 1954; VANDEL 1960).

REMARKS

Two taxa of *Tylos* occur in Corsica, as well as in Sardinia and some islands of the Tuscan Archipelago. According to VANDEL (1960) they represent two subspecies of *Tylos latreillei* Audouin, 1826 (*T. latreillii europaeus* Arcangeli, 1938 and *T. latreillii sardous* Arcangeli, 1938), while GIORDANI SOIKA (1954, 1972) and KUSSAKIN (1982) consider these two taxa as distinct species since they are well characterised from both morphological and ecological points of view

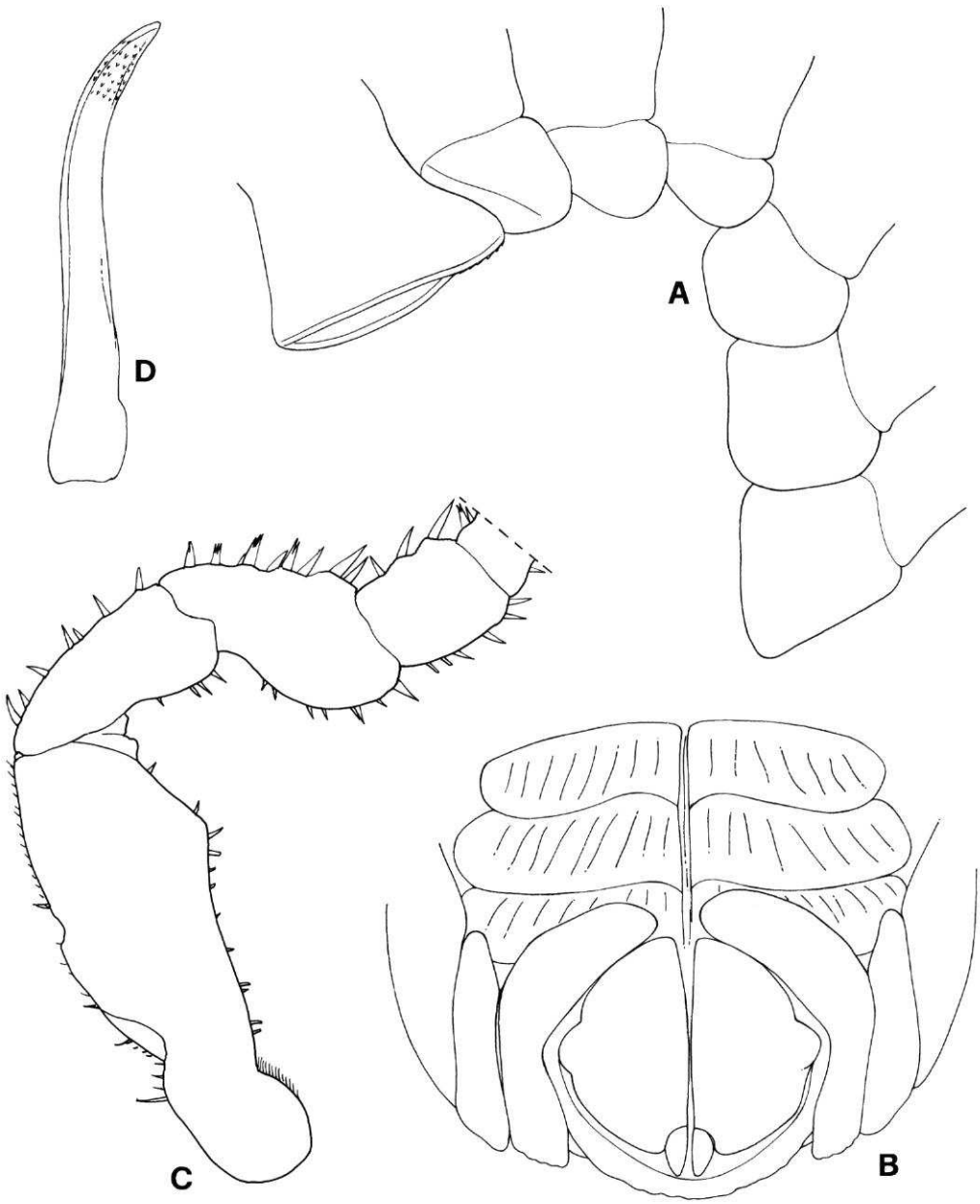

FIG. 1. — *Tylos europaeus*: A, pereonal epimera, dorsal; B, pleon and uropods, ventral; C, pereopod 1; D, ♂ pleopod 2 endopod.

(VANDEL 1960). The main problem is the correct identification of the true *T. latreillii*, to which one of these two forms most probably corresponds. GIORDANI SOIKA (1972) suggests the following synonyms: *T. sardous* Arcangeli, 1938 = *T. ponticus* Grebnitzky, 1874, and, tentatively, *T. europaeus* Arcangeli, 1938 = *T. latreillii* Audouin, 1826. In contrast, KUSSAKIN (1982) considers *T. europaeus* and *T. ponticus* as valid species, and *T. latreillii* a taxon incertae sedis. In our opinion *T. ponticus*, rather than *T. europaeus*, is a more probable synonym of *T. latreillii*. In fact, in the original figures of *T. latreillii* (AUDOUIN 1826, pl. 13, fig. 1.3) the ventral plates of pleonite 4 are arched and apically pointed, and those of pleonite 5 have apices obliquely truncate; these features are certainly more similar to those of *T. ponticus* than *T. europaeus* (see also VANDEL 1960). Since we are unable to solve with certainty the real synonymy of *T. latreillii*, for the moment we prefer to follow KUSSAKIN's opinion and maintain the names *T. europaeus* and *T. ponticus* for the two taxa.

It is difficult to define the exact distribution of the two species *T. europaeus* and *T. ponticus*, since in the literature both taxa have often been recorded with the name *T. latreillii*. Re-examination of the material studied by the different authors is necessary in order to determine to which of the two species those records belong.

Tylos europaeus is readily distinguished from *T. ponticus* by: the more developed groove on the lateral margin of pereonite 1 and the wider epimera of pereonites 2 to 7 (compare Fig. 1A and Fig. 2A); the ventral plates of pleonite 4 shorter and stouter, and those of pleonite 5 having rounded, instead of truncate, apices (compare Fig. 1B and Fig. 2B); the basis of pereopod 1 without a prominent triangular process on the tergal margin (compare Fig. 1C and Fig. 2C); and the male pleopod 2 endopod with a narrower and more curved apical part (compare Fig. 1D and Fig. 2D).

Tylos ponticus Grebnitzky, 1874
(Fig. 2)

Tylos sardous; GIORDANI SOIKA 1954: 73.
Tylos latreillei sardous; VANDEL 1960: 109, fig. 48D-E.
Tylos ponticus; LANZA & POGGESI 1986: 121, 180.

MATERIAL EXAMINED. — 8 ♂♂, Golfo di Sogno, leg. S. Taiti, 13.IV.1981; 6 ♂♂, 8 ♀♀, rocher d'Acciaju Nord (N of golfe de Sta Giulia), leg. B. Lanza, 8.VIII.1972.

PREVIOUS RECORDS. — Porto-Vecchio (GIORDANI SOIKA 1954); Corsica (VANDEL 1960); rocher d'Acciaju Nord (LANZA & POGGESI 1986).

DISTRIBUTION. — This species occurs on the coasts of the Mediterranean Sea, the Atlantic coast of northwestern Africa (GIORDANI SOIKA 1954), and probably the Red Sea (TAITI & FERRARA 1991).

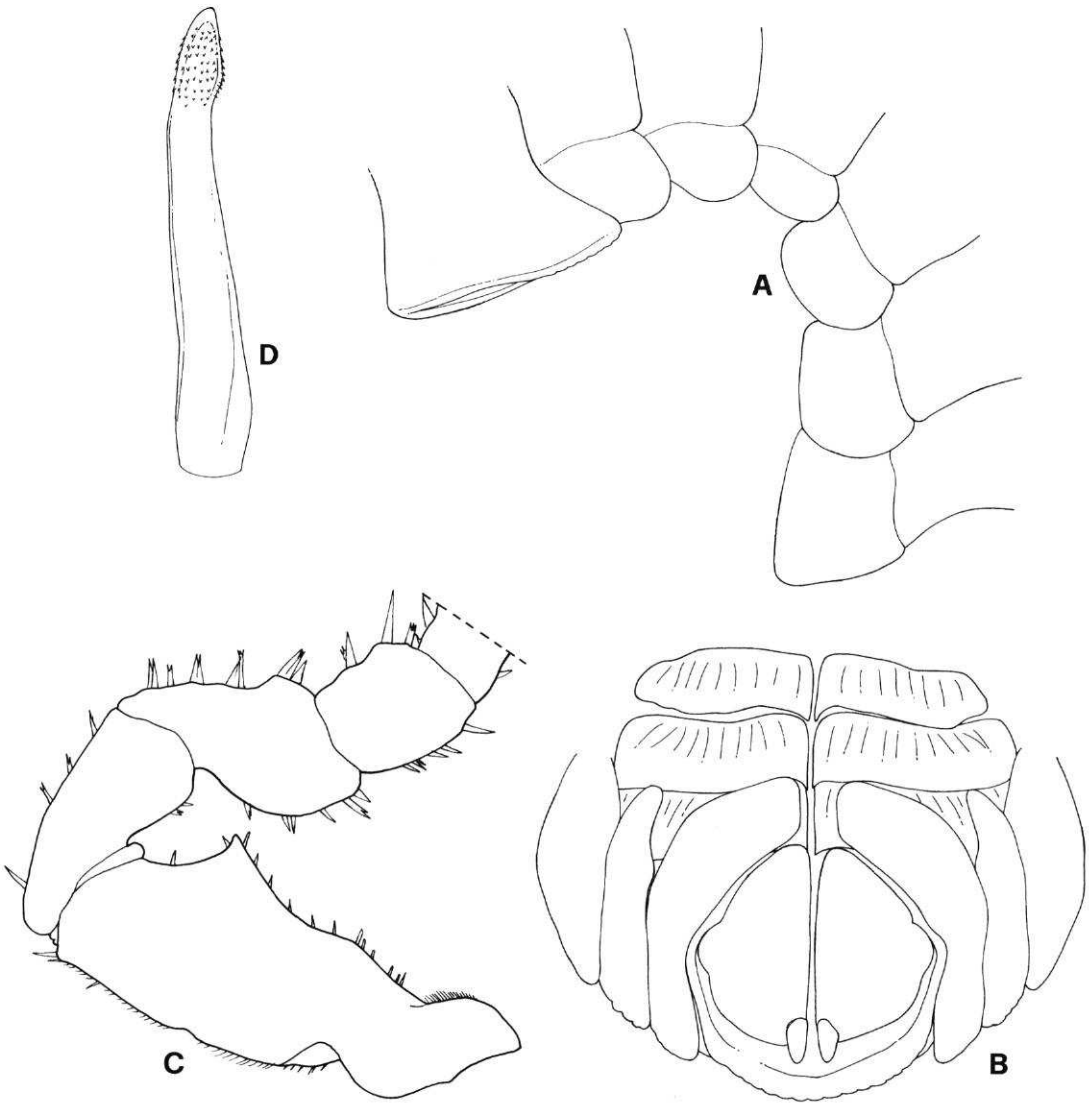

FIG. 2. — *Tylos ponticus*: A, pereonal epimera, dorsal; B, pleon and uropods, ventral; C, pereopod 1; D, ♂ pleopod 2 endopod.

Genus **HELLERIA** Ebner, 1868

Helleria brevicornis Ebner, 1868

Helleria brevicornis Ebner, 1868: 95, pl. I; SCHARFF 1894: 163; DOLLFUS 1899: 208; ARCANGELI 1914: 481; 1925: 55; 1947: 373; 1950: 146, 149; COLLINGE 1941: 522; VANDEL 1954a: 73; 1960: 110, figs 28, 47B, 49; BERON 1972a: 9; LANZA & POGGESI 1986: 121, 180.

Syspastus brevicornis; BUDDE-LUND 1885: 280; VERHOEFF 1926: 263.

MATERIAL EXAMINED. — Many ♂♂ and ♀♀ collected from the following localities: Camera (near Centuri); 2 km SE of col de Ste-Lucie (between Pino and Luri); marine de Giottani; Selmacci (SW of Pietracorbara); St-Léonard (near marine de Pietracorbara); marine de Pietracorbara; Sta Catterina de Sisco; along the Sisco river, near Crosciano; marine de Sisco; Guado Grande (N of Nonza); Sta Maria-di-Lota (W of Miomo); Serra di Pigno (Bastia); between Bastia and St-Florent; défilé de Lancone, between Oletta and Casatorra; near Capo a u Cavallo (SW of Calvi); Francardo; Campana (N of Piedicroce); near Stazzona (S of Piedicroce); 2 km S of Carticasi; forêt de Valdo-Niello, Albertacce; Gorges de la Restonica; Elbo (NW of Girolata); plage de Caspio (NW of Porto); Porto and environs; Vecchio valley (S of Venaco); Sagone river valley, 6 km SW of Vico; U Castagno (Ghisoni); Ghisoni; col de Vizzavona; Cascades des Anglais (Vizzavona); 1 km W of Tolla (Prunelli river valley); near Suarella (N of Cauro); Zicavo; near Solenzara; 3 km N of col de la Vaccia (N of Aullène); between Alza and Argiavara (col de Bavella); col de Bavella; N of Aullène; Serra-di-Scopamène (S of Aullène); Zonza; Fiumicicoli river valley; S of Orone (W of l'Ospedale); forêt de l'Ospedale; Golfo di Sogno (N of Porto-Vecchio); Tizzano (SW of Sartène); rocher d'Acciaju nord (N of golfe de Sta Giulia).

PREVIOUS RECORDS. — Ajaccio (EBNER 1868; BUDDE-LUND 1885; SCHARFF 1894); St-Florent (BUDDE-LUND 1885; SCHARFF 1894); Bastia (SCHARFF 1894; DOLLFUS 1899); Orezza, Vico, Vizzavona (DOLLFUS 1899); Ghisernia, Iaterni (ARCANGELI 1914); between Bastia and Cardo, Sta Lucia, San Martino, near grotte de Brando, forêt d'Aitone (Evisa), Vizzavona, Punta di Borgo (Ajaccio) (VERHOEFF 1926); Corsica, very common (VANDEL 1960); grotte de Corte (BERON 1972a); rocher d'Acciaju nord (LANZA & POGGESI 1986).

DISTRIBUTION. — This species has a North-Tyrrhenian distribution. It occurs in southern Provence, Corsica, Sardinia, some islands of the Tuscan Archipelago (Capraia, Elba, Pianosa) and Monte Massoncello (Livorno). BUDDE-LUND (1885) recorded this species at Genoa and VERHOEFF (1910) at Ospedaletti (Imperia), but these records need confirmation; according to VANDEL (1960) they represent occasional introductions.

Family LIGIIDAE
Genus **LIGIA** Fabricius, 1798

Ligia italica Fabricius, 1798

Ligia italica; VANDEL 1954a: 73; 1960: 122, figs 54-56; BEAUCOURNU 1967: 562; BERON 1972a: 9.

MATERIAL EXAMINED. — Many ♂♂ and ♀♀ collected from the following localities: Cap Corse; Capo Pertusato (SE of Bonifacio); île de la Giraglia; île Pietricaggiosa (Cerbicale); îlot Toro Piccolo; îlot La Folaca (near Palombaggia); îlot de la Roscana (golfe de Pinarello); îlot Sperduto Grande and îlot Sperduto Piccolo (E of île Cavallo).

PREVIOUS RECORDS. — Corsica (VANDEL 1960); grotte des Pigeons (Sagone) (BEAUCOURNU 1967; BERON 1972a).

DISTRIBUTION. — This species is common on the coasts of the whole Mediterranean, the Atlantic coast of the Iberian Peninsula and Atlantic islands (Azores, Madeira and Canaries).

Family TRICHONISCIDAE
Genus **FINALONISCUS** Brian, 1951

Finaloniscus briani Vandel, 1953
(Fig. 9)

Finaloniscus Briani Vandel, 1953a: 154, figs 1-4; 1954a: 73.

Finaloniscus briani; VANDEL 1960: 143, figs 61-64, 1968a: 356; BERON 1972a: 10, 1972b: 809.

MATERIAL EXAMINED. — 1 ♀, grotte de Sisco (N of Bastia), leg. W. Schawaller, 8.VIII.1980.

PREVIOUS RECORDS. — Grotte de Corte (Pietracorbara) (Vandel, 1953a); alluvial plains of lower Gravona river, E of Ajaccio (Vandel, 1960; 1968a; Beron, 1972a).

DISTRIBUTION. — Known only from the above localities.

Finaloniscus franciscoloi (Brian, 1951)
(Figs 3, 9)

MATERIAL EXAMINED. — 7 ♀♀, 3 juvs, marine de Giottani (between Nonza and Centuri-Port), leg. S. Taiti and A. Poggesi, 24.VI.1984; 3 ♀♀, Ogliastro (N of Nonza), leg. S. Taiti and A. Poggesi, 24.VI.1984; 4 ♂♂, 1 ♀, plage de Caspio (NW of Porto), leg. S. Taiti, 16.IV.1981.

DISTRIBUTION. — *Finaloniscus franciscoloi* was previously recorded from some caves of Savona Province (Liguria) (BOLOGNA & VIGNA TAGLIANTI 1985), from Tuscany (TAITI & FERRARA 1989a, 1995b) and Sicily (CARUSO *et al.* 1987).

REMARKS

These specimens correspond in all details to the descriptions of *F. franciscoloi* by BRIAN (1951) and VANDEL (1953b). Besides the two species present in Corsica, the genus *Finaloniscus* includes also *F. berberensis* Vandel, 1959 from Algeria and Morocco, which, according to its description (VANDEL 1959), is probably synonymous with *F. franciscoloi.*

Genus **NESIOTONISCUS** Racovitza, 1908

Nesiotoniscus corsicus Racovitza, 1908
(Figs 4, 9)

Trichoniscus (Nesiotoniscus) corsicus Racovitza, 1908: 360, pls XVI-XVIII, figs 226-257; VERHOEFF 1943: 159.

Trichoniscus corsicus; JEANNEL & RACOVITZA 1908: 389.

Trichoniscus (Phymatoniscus) corsicus; WOLF 1934: 73.

Nesiotoniscus corsicus; VANDEL 1947: 36; REMY 1950: 25; BRIAN 1953: 33; VANDEL 1953a: 160; TAITI & FERRARA 1995a: 313, fig. 4.

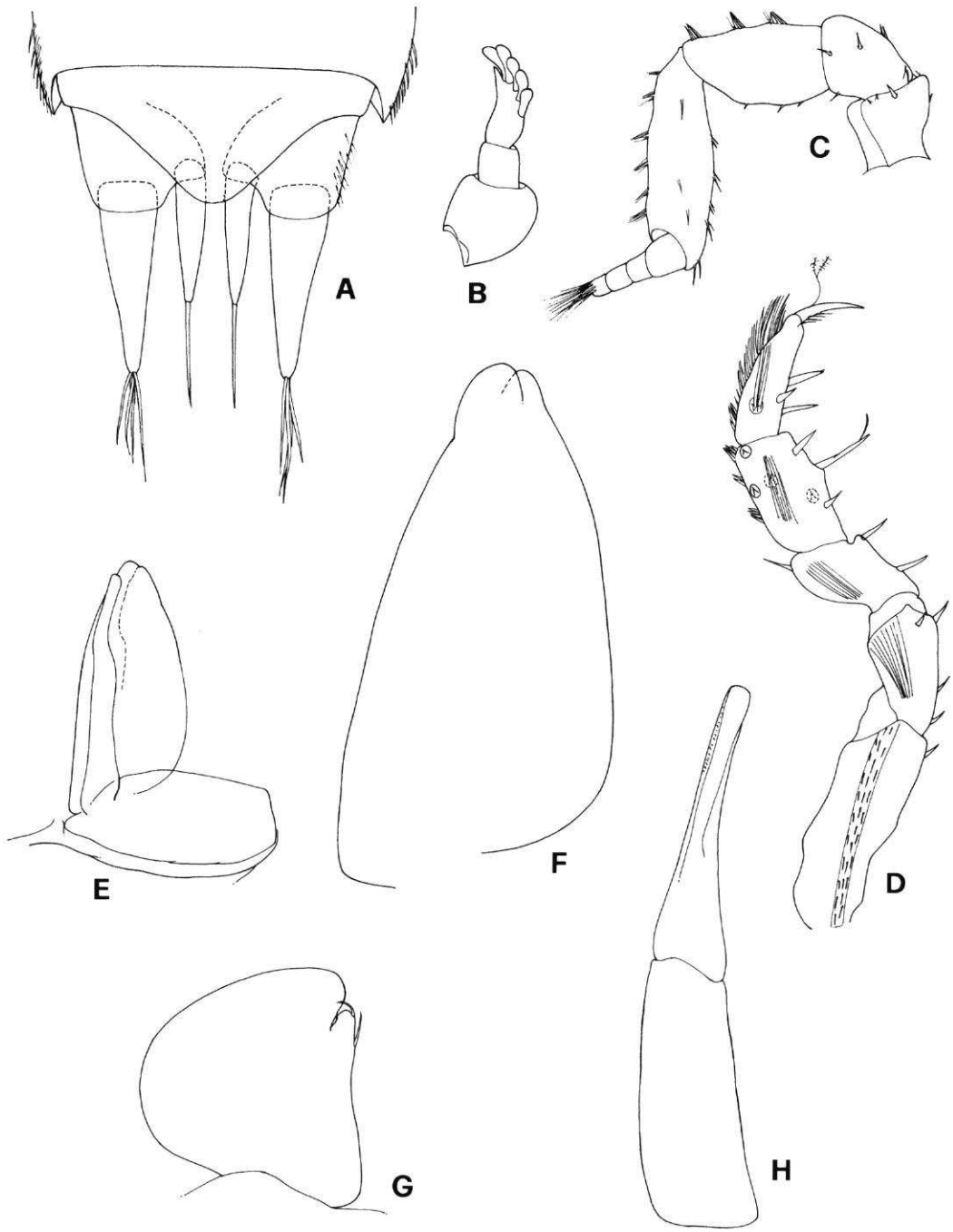

FIG. 3. — *Finaloniscus franciscoloi*, ♂: A, telson and uropods; B, antennule; C, antenna; D, pereopod 7; E, pleopod 1; F, pleopod 1 exopod; G, pleopod 2 exopod; H, pleopod 2 endopod.

Nesiotoniscus corsicus corsicus; VANDEL 1954b: 153; 1960: 179, fig. 80; 1968a: 357; BERON 1972a: 10; 1972b: 809; DALENS 1977: 181.

Nesiotoniscus paganus; VANDEL 1954a: 73.

Nesiotoniscus corsicus Racovitzai Vandel, 1954b: 154, fig. 2E (*partim*: Francardo, ? Propriano, ? Sartène).

Nesiotoniscus corsicus racovitzai; VANDEL 1960: 181, fig. 81C (*partim*: Francardo, ? Propriano, ? Sartène).

MATERIAL EXAMINED. — 4 ♂♂, 1 ♀, grotte de Pietralbello (Moltifao), leg. S. Taiti and S. Campanelli, 16.X.1982; 2 ♀♀, same locality, leg. P. Beron, 24.XI.1967; 1 ♂, same locality, leg. S. Taiti and S. Vanni, 7.III.1994; 4 ♂♂, 10 ♀♀, 3 juvs, 1.6 km from Stazzona, near road to Eaux d'Orezza, leg. S. Taiti and A. Poggesi, 20.VI.1984; 3 ♂♂, 2 ♀♀, 8 juvs, Francardo, right bank of Golo river, leg. S. Taiti and A. Poggesi, 22.VI.1984; 1 ♂, 3 ♀♀, Francardo, rive droite du Golo, à 100 m en aval du pont de la route nationale 193, alt. 266 m, leg. P. Rémy, 22.VIII.1942 (syntypes of *N. corsicus racovitzai*, MNHN); 1 ♂, 1 ♀, Monte Rosso (SE of Sartène), meadow near ilex grove, leg. S. Taiti and S. Campanelli, 20.X.1982; ? 1 ♀, Propriano, au nord de Sartène, sur le bord de la mer près du château, alt. 15 m, leg. P. Rémy, 18.IX.1948 (syntype of *N. corsicus racovitzai*, MNHN); ? 1 ♀, Sartène, jardins à l'ouest du couvent de San Damiano, alt. 300 m, leg. P. Rémy, 16.IX.1948 (syntype of *N. corsicus racovitzai*, MNHN).

PREVIOUS RECORDS. — Grotte de Pietralbello (RACOVITZA 1908; JEANNEL & RACOVITZA 1908; WOLF 1934; REMY 1950; BRIAN 1953; VANDEL 1953a, 1954b, 1960, 1968a; BERON 1972a; DALENS 1977); Francardo, right bank of Golo river (VANDEL 1947, 1953a, 1954b, 1960); ? Propriano, ? Sartène (VANDEL 1954b, 1960); grotte de Grottone (Lama), grotte Roumandella (Caporalino), grotte de Cabanuli (Omessa) (VANDEL 1968a; BERON 1972a).

DISTRIBUTION. — Known only from Corsica.

REMARKS

VANDEL (1960) considers the taxa of *Nesiotoniscus* with a hook-like process on the male pereopod 7 merus as subspecies of *N. corsicus*. According to TABACARU (1993) and TAITI & FERRARA (1995a) they belong to distinct species: *N. corsicus* and *N. racovitzai* Vandel, 1955 from Corsica, *N. ribensis* Vandel, 1948 from the Grasse region (Provence) and *N. bernardi* (Vandel, 1943) from the massif of Estérel. These four species together with *N. harpagonifer* Taiti & Ferrara, 1995 from Capraia Island (Tuscan Archipelago) constitute a homogeneous group within the genus (*corsicus*-group).

Nesiotoniscus corsicus is widely distributed in the granitic part of Corsica. Some populations show small differences in the shape of the male pleopod 1 exopod (compare Fig. 4B, specimen from "grotte de Pietralbello", and Fig. 4E, specimen from Monte Rosso, SE of Sartène), but in our opinion these differences are within the variability of the species.

Re-examination of the type material of *N. racovitzai* showed that only the specimen from Solenzara (lectotype, see below) fits the description of the species (VANDEL 1954b, fig. 2D), while those from Francardo belong to *N. corsicus*. Most probably also the two syntypes females from Sartène and Propriano should be ascribed to *N. corsicus*, as suggested by the presence of this species in the same area (Monte Rosso).

FIG. 4. — *Nesiotoniscus corsicus*, ♂ from grotte de Pietralbello: A, pereopod 7; B, pleopod 1; C, pleopod 2. ♂ from Monte Rosso: D, pereopod 7; E, pleopod 1; F, pleopod 2.

Nesiotoniscus racovitzai Vandel, 1954
(Figs 5, 9)

Nesiotoniscus corsicus Racovitzai Vandel, 1954b: 153, figs 2D, 3 (*partim*: Solenzara).
Nesiotoniscus corsicus racovitzai; VANDEL 1960: 180, fig. 81A, B, D (*partim*: Solenzara).
Nesiotoniscus racovitzai; TAITI & FERRARA, 1995a: 313, fig. 4.

MATERIAL EXAMINED. — 1 ♂ lectotype (specimen in micropreparation, MNHN-Is4105), Solenzara, Commune de Sari-di-Porto-Vecchio, ravin de Fontanaccia, entre la mer et la route nationale, alt. 2 m, leg. P. Remy, 3.IX.1948.

PREVIOUS RECORDS. — Solenzara (VANDEL 1954b, 1960).

DISTRIBUTION. — Known only from Corsica.

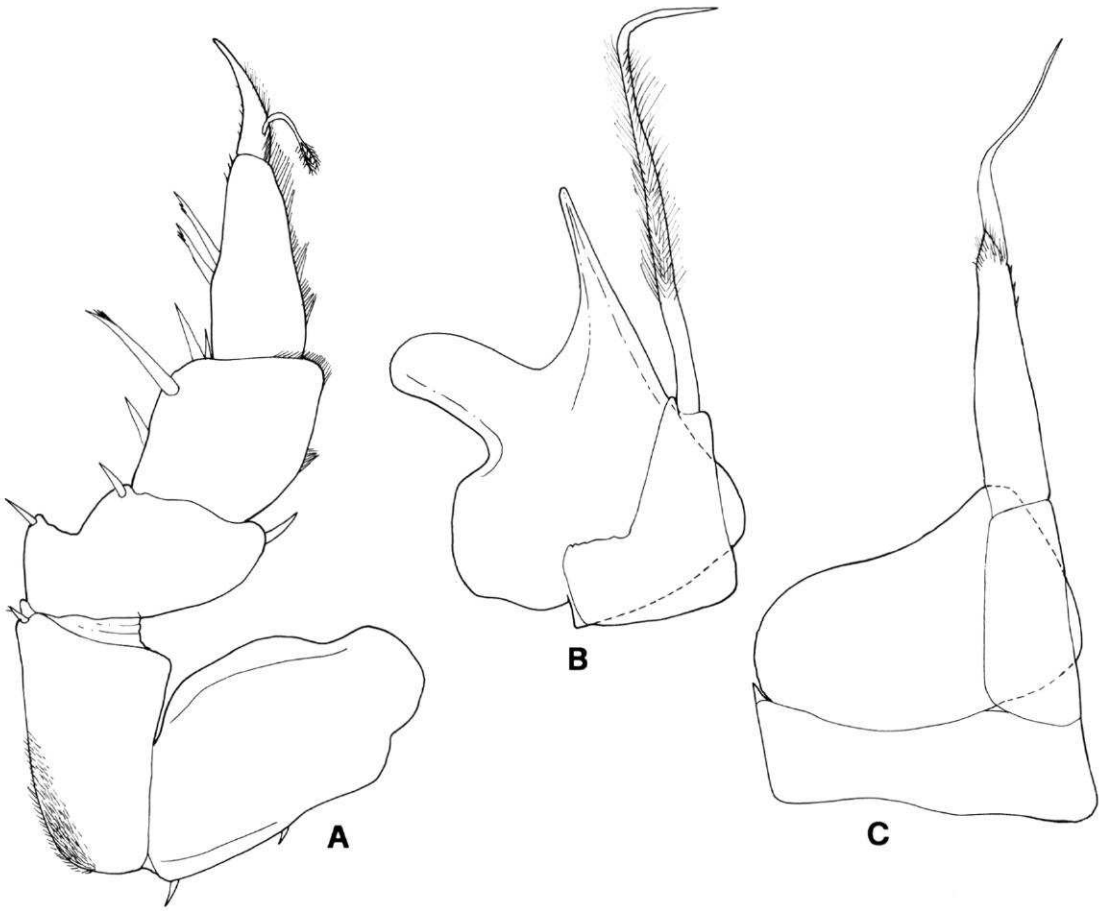

FIG. 5. — *Nesiotoniscus racovitzai*, lectotype: A, pereopod 7; B, pleopod 1; C, pleopod 2.

REMARKS

Nesiotoniscus racovitzai belongs to the *corsicus*-group on account of the hook-like process on the male pereopod 7 merus. It is readily distinguished from all other species in the group by the structure of the male pleopod 1 exopod which has a long narrow posterior point and a large subrectangular lobe on the external margin.

Genus **ORITONISCUS** Racovitza, 1908

Oritoniscus paganus Racovitza, 1908
(Figs 6A-D, 9)

Trichoniscus (Oritoniscus) paganus Racovitza, 1908: 233, pls XV-XVI, figs 181-211; WOLF 1934: 72.

Trichoniscus paganus; JEANNEL & RACOVITZA 1908: 389.

Oritoniscus paganus; REMY 1950: 7, 9, 25; VANDEL 1953a: 159 (*partim*: nec grotte des Tobi Pinnuti); 1954a: 73; BERON 1972b: 809.

Oritoniscus paganus paganus; VANDEL 1960: 213, fig. 100B (*partim*: nec grotte des Tobi Pinnuti); 1968a: 357 (*partim*: nec grotte des Tobi Pinnuti); BERON 1972a: 10 (*partim*: nec grotte des Tobi Pinnuti).

MATERIAL EXAMINED. — 2 ♂♂, 1 ♀, grotte de Pietralbello (Moltifao), leg. P. Beron, 24.XI.1967; 3 ♀♀, same locality, leg. S. Taiti and S. Campanelli, 16.X.1982; 1 ♂, 1 ♀, grotte de Roumandella (Caporalino), leg. S. Taiti, 12.V.1982; 14 ♂♂, 12 ♀♀, grotte de Sabara (Castiglione), leg. S. Taiti and S. Campanelli, 17.X.1982; 2 ♂♂, 1 juv., same locality, leg. S. Taiti and S. Vanni, 10.III.1994; 1 ♂, grotte de Cherpinede (Lano), leg. A. Torchia and S. Zoia, 26.V.1982; 2 ♀♀, same locality, leg. S. Taiti and A. Poggesi, 22.VI.1984.

PREVIOUS RECORDS. — Grotte de Pietralbello (RACOVITZA 1908; REMY 1950; VANDEL 1953a, 1960, 1968a; BERON 1972a); grotte de Sisco, grotte de Brando (REMY 1950; VANDEL 1968a; BERON 1972a); grotte de Corte (Pietracorbara) (VANDEL 1968a; BERON 1972a); grotte de Cherpinede, grotte de Sulane (Furiani), grotte de Cabanuli (Omessa), grotte de Sabara, grotte de Valletto (Santo-Pietro-di-Venaco), grotte de Leccia-Torta (Castiglione), grotte de Gudrone (Sorio), grotte des Paladini (Solaro) (VANDEL 1953a, 1960, 1968a; BERON 1972a); grotte Tavona di Nuaia No. 2 (Conca) (VANDEL 1960, 1968a; BERON 1972a); grotte Manuel-Ange (Lozzi), grotte Chevalier (Lano) (VANDEL 1968a; BERON 1972a); Canella bridge (S of Solenzara), banks of lower Gravona river (E of Ajaccio) (VANDEL 1960, 1968a).

DISTRIBUTION. — *Oritoniscus paganus* is endemic to Corsica.

REMARKS

On the basis of the presence or absence of the eye, VANDEL (1953a, 1960) divides the species into two subspecies: the nominal one, blind, spread throughout Corsica, and the subspecies *ocellatus*, limited to the northern peninsula. In the caves of Brando, Sisco and Corte, both subspecies seemed to be present (VANDEL 1968a).

The material examined here revealed the following important facts:

1. In the caves of Brando and Sisco (we have not studied material from the grotte de Corte) only the form *ocellatus* has been collected, and most probably this is the only species of the genus present in the whole Cap Corse peninsula;

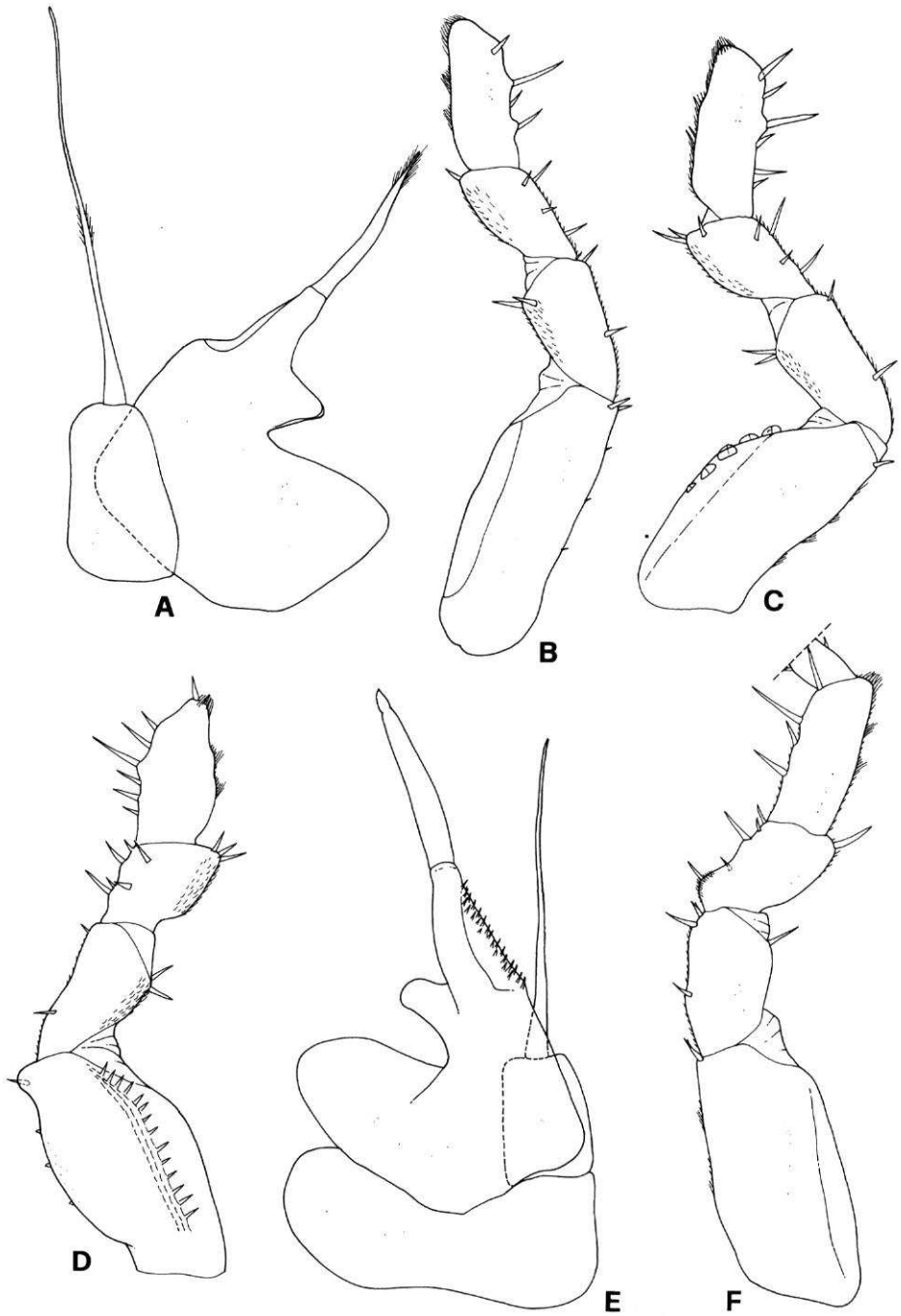

FIG. 6. — *Oritoniscus paganus*, ♂ from grotte de Pietralbello: A, pleopod 1; B, pereopod 5; C, pereopod 6; D, pereopod 7. *Oritoniscus ocellatus*, ♂ from grotte de Sisco: E, pleopod 1; F, pereopod 5.

2. VANDEL (1960) considers the specimens described by RACOVITZA (1908) to be immature stages of *O. paganus paganus*. VANDEL's opinion is certainly incorrect, since all the male specimens examined from the caves of Pietralbello (type locality), Sabara and Roumandella, up to 4 mm long and certainly adult, have pleopod 1 (Fig. 6A) as illustrated by RACOVITZA (1908) and VANDEL (1960, fig. 100B);

3. VANDEL (1953a) identifies *O. paganus* from the grotte des Tobi Pinnuti on the basis of a female and two juveniles. Some specimens with no trace of an eye, collected from the same cave, possess male characters (♂ 5.5 mm long) which differ from those of both *paganus* and *ocellatus* (see below).

Due to the consistent differences in male characters between *paganus* and *ocellatus*, we consider these two taxa to be distinct species. This conclusion has also been confirmed by a genetic analysis (COBOLLI SBORDONI *et al.* 1995). Most probably also the specimens from the grotte des Tobi Pinnuti belong to another distinct species, but we prefer not to nominate it because of the small amount of material examined.

The exact distribution within Corsica of *O. paganus* is not clear: it is certainly present in the four caves from which we examined specimens, while the records by VANDEL need confirmation after re-examination of the material studied by the French author.

Oritoniscus ocellatus Vandel, 1953
(Figs 6E, F, 7A, B, 9)

Oritoniscus paganus var. *ocellata* Vandel, 1953a: 159.

Oritoniscus paganus ocellatus; VANDEL 1960: 216, figs 99-100A, C; 1968a: 360; BERON 1972a: 10.

MATERIAL EXAMINED. — 3 ♂♂, 6 ♀♀, grotte de Sisco, leg. B. Lanza, 11.IV.1977; 8 ♂♂, 13 ♀♀, same locality, leg. W. Schawaller, 8.VIII.1980; 6 ♂♂, 19 ♀♀, same locality, leg. S. Taiti, 19.IV.1981; 3 ♂♂, 8 ♀♀, same locality, leg. S. Taiti, 21.V.1982; 14 ♂♂, 11 ♀♀, same locality, leg. S. Taiti and S. Campanelli, 13.X.1982: 4 ♂♂, 11 ♀♀, same locality, leg. S. Taiti and A. Poggesi, 27.VI.1984; 1 ♂, 1 ♀, same locality, leg. S. Taiti and S. Vanni, 6.III.1994; 2 ♂♂, 3 ♀♀, grotte de Brando, leg. S. Taiti and S. Campanelli, 13.X.1982; 2 ♀♀, same locality, leg. P. Magrini, 1.XI.1983; 1 ♂, 3 juvs, Camera (near Centuri), leg. S. Taiti, 18.IV.1981; 2 ♂♂, 1 ♀, near Camera, ilex grove, leg. S. Taiti and A. Poggesi, 19.VI.1984.

PREVIOUS RECORDS. — Grotte de Corte, grotte de Sisco, grotte de Brando (VANDEL 1953a, 1960, 1968a; BERON 1972a); Pino (VANDEL 1960, 1968a).

DISTRIBUTION. — This species occurs in the Cap Corse peninsula. A closely related form is present on the islands of Montecristo and Giannutri in the Tuscan Archipelago (TAITI & FERRARA 1995b).

REMARKS

Oritoniscus ocellatus differs from *O. paganus* in the presence of the eye, consisting of a single ommatidium, and the male modifications. In particular, the pereopod 5 merus shows a distinct setose swelling at the base (absent in *O. paganus*); the pereopod 7 basis is more swollen; the pleopod 1 exopod is clearly longer than the endopod (vice versa in *O. paganus*), with the basal lobe narrow and rounded (conspicuous and rectangular in *O. paganus*), the medial margin straight with many small spines in the distal part (it shows a step and no spines in *O. paganus*), and the terminal spine stouter with no distal setae.

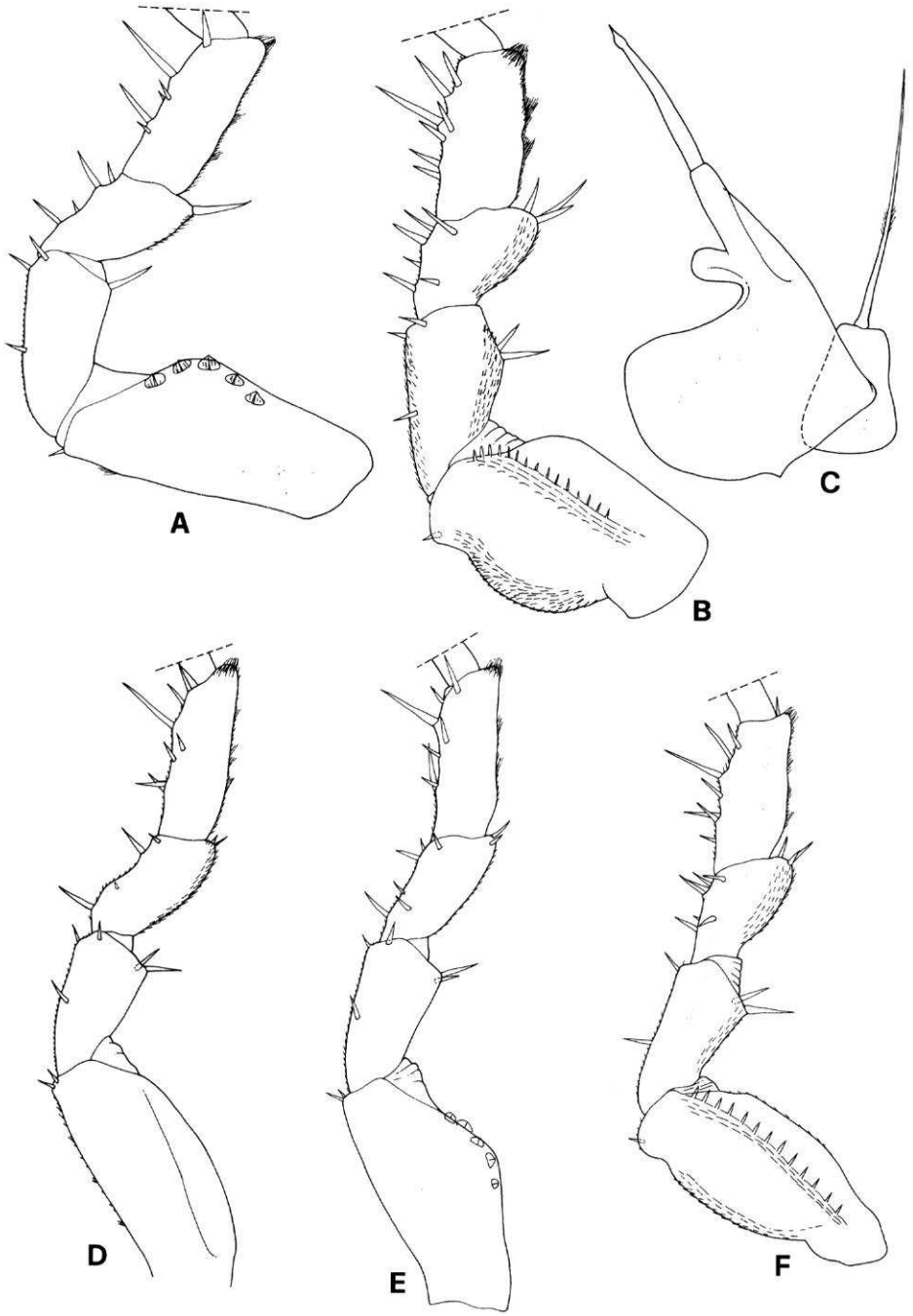

FIG. 7. — *Oritoniscus ocellatus*, ♂ from grotte de Sisco: A, pereopod 6; B, pereopod 7. *Oritoniscus* sp., ♂ from grotte des Tobi Pinnuti: C, pleopod 1; D, pereopod 5; E, pereopod 6; F, pereopod 7.

Oritoniscus sp.
(Figs 7C-F, 9)

Oritoniscus paganus; VANDEL 1953a: 159 (*partim*: grotte des Tobi Pinnuti).

Oritoniscus paganus paganus; VANDEL 1960: 216 (*partim*: grotte des Tobi Pinnuti); 1968a: 359 (*partim*: grotte des Tobi Pinnuti); BERON 1972a: 10 (*partim*: grotte des Tobi Pinnuti).

MATERIAL EXAMINED. — 1 ♂, 3 ♀♀, 5 juvs, grotte des Tobi Pinnuti (Sorio), leg. S. Taiti, 15.X.1982.

PREVIOUS RECORDS. — Grotte des Tobi Pinnuti (VANDEL 1953a, 1960, 1968a; BERON 1972a).

REMARKS

These specimens show clear differences in the male characters, particularly the shape of pleopod 1 (Fig. 7C), from both *O. paganus* and, to a lesser extent, *O. ocellatus*. They probably belong to a distinct species but more material is needed for a certain identification.

Oritoniscus punctatus n.sp.
(Figs 8, 9)

Oritoniscus punctatus (nomen nudum); FERRARA & TAITI 1984: 417.

MATERIAL EXAMINED. — 1 ♂ holotype (MZUF), 1 ♂ juv., 1 ♀ paratype (MNHN-Is4103), 1 ♀ paratype (MV), 1 ♀ juv. paratype (MZUF), Punta de la Parata (W of Ajaccio), under big stones on rocky cliff near sea, leg. S. Taiti, 14.V.1982.

ETYMOLOGY. — L. *punctatus* = having a point. The name refers to the distinct triangular point on the medial margin of the basal part of the male pleopod 1 exopod.

DESCRIPTION

Maximum length: ♂♂ and ♀♀, 4 mm.

Colourless body. Eye absent. Dorsum with distinct granulations, each bearing a large scale-spine on top. Antennule of three articles with 6-7 aesthetascs at the apex. Antenna with flagellum of five articles, the second of which with a row of 5-6 aesthetascs.

Male

Pereopods 1-6 without distinct modifications. Pereopod 7 basis with a deep depression on the distal part of the sternal margin. Pleopod 1 exopod with a basal part having a large concavity and a rounded lobe on the external margin, a distinct triangular point on the medial margin, and ending with a very long and strong distal spine; endopod with a rectangular basal part on which a long glabrous flagellum is inserted, not surpassing the tip of the exopod. Pleopod 2 exopod about three times as wide as long, with short posterior point apically rounded; endopod of two articles, the distal one pointed and slightly longer than the basal one.

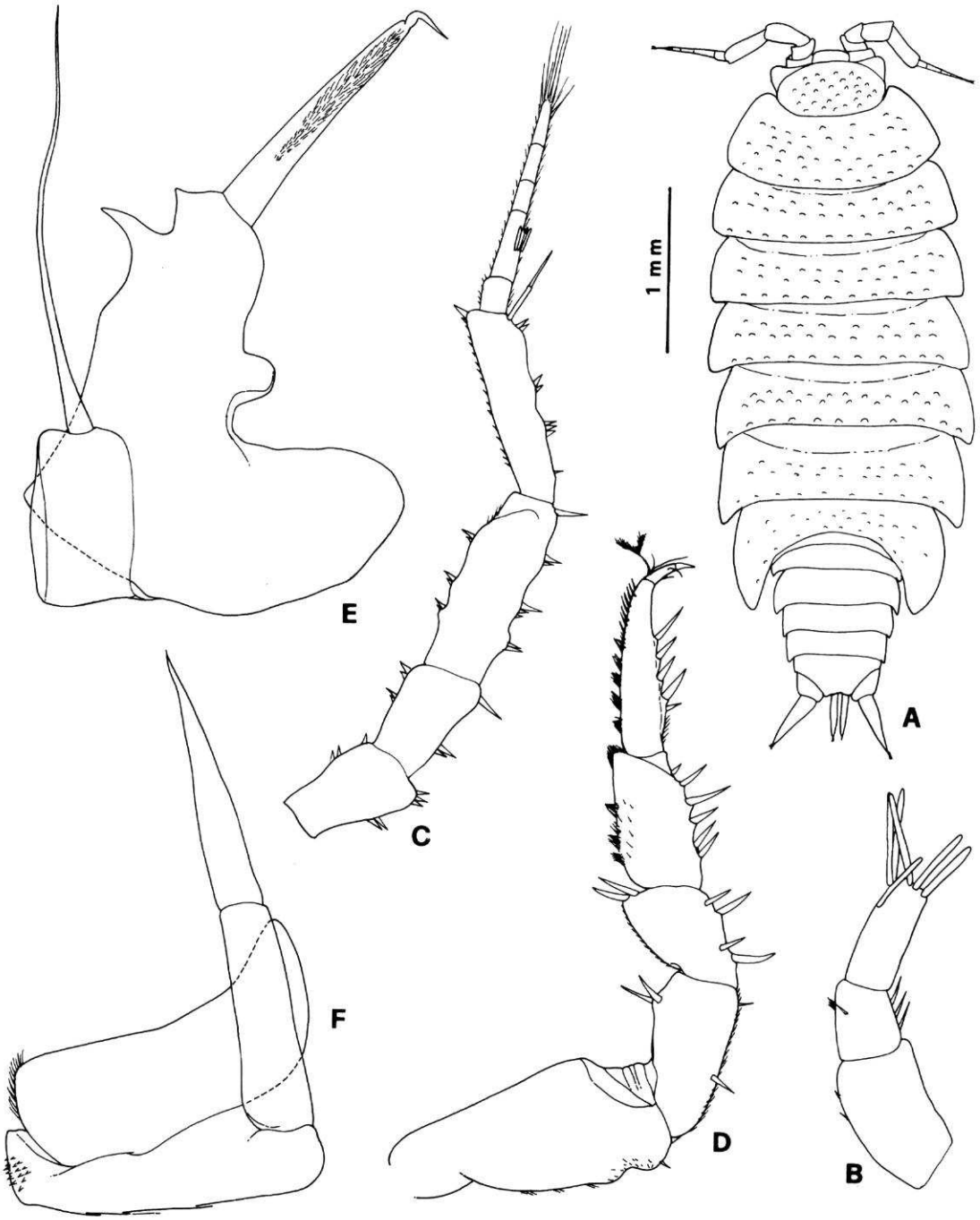

FIG. 8. — *Oritoniscus punctatus* n.sp., ♂: A, holotype, dorsal; B, antennule; C, antenna; D, pereopod 7; E, pleopod 1; F, pleopod 2.

REMARKS

The new species shows close affinities with *O. paganus* and *O. ocellatus*. It is easily distinguishable from both in having dorsal granulations and in the modifications of the male pereopod 7 and pleopod 1, particularly the shape of the exopod with a distinct acute point on the medial margin. This last character is absent in all the species of the *paganus*-group.

Genus **TRICHONISCUS** Brandt, 1833

Trichoniscus pusillus provisorius Racovitza, 1908

Trichoniscus pusillus provisorius; VANDEL 1954a: 73; 1960: 321, figs 30, 150.2.

MATERIAL EXAMINED. — Many ♂♂ and ♀♀ collected from the following localities: Barcaggio (Cap Corse); Minervio (S of Pino); Carbonacce (S of Luri); marine de Giottani (between Nonza and Centuri-Port); Ponticello (near Pietracorbara); marine de Pietracorbara; Nonza; near grotte de Brando; Lavasina (S of Brando); col de Teghime (W of Bastia); Oletta; Bevinco river valley, below col de S. Stefano; Urtaca; 2 km SW of Ponte Novu (Golo river valley); Asco river valley, S of Moltifao; 3 km S of Ponte Leccia, left bank of Golo river; forêt de Bonifato (S of Calvi); Punta di Chiarsgioli (Monte San Petrone); Francardo; near Lano (NW of Corte); near Stazzona; Corte; near Albertacce (forêt de Valdo-Niello); col de Vergio (NE of Evisa); Porto; SSE of Evisa; Tavignano river valley, between Volta and Scandulaie (NW of Aléria); col de Vizzavona; col de Verde (S of Ghisoni); 1 km E of Tolla (Prunelli river valley); between Cauro and Bocca San Giorgio (E of Ajaccio); 3 km N of col de la Vaccia (N of Aullène); col de Bavella; 2 km NW of Aullène; Casalabriva (N of Propriano); below chapelle Pianelli, between Casalabriva and Olmeto; Golfo di Sogno (N of Porto-Vecchio); Monte Rosso (SE of Sartène); Orasi (S of Sartène); Tizzano (SW of Sartène).

PREVIOUS RECORDS. — All Corsica (VANDEL 1954a, 1960).

DISTRIBUTION. — *Trichoniscus pusillus provisorius* is recorded from France, Great Britain, Ireland, Denmark, Poland, Spain, Switzerland, Italy, Turkey, Lebanon and Algeria. It has been introduced also to the Azores and Newfoundland.

Trichoniscus pygmaeus Sars, 1899

Trichoniscus pygmaeus; VANDEL 1954a: 73; 1960: 325, figs 153-154.

MATERIAL EXAMINED. — 1 ♂, between Pietrosella and Fogolina, SE of Porticcio (Ajaccio), ilex and arbutus wood, leg. S. Taiti and S. Campanelli, 21.X.1982.

PREVIOUS RECORDS. — Corsica (VANDEL 1954a, 1960).

DISTRIBUTION. — This is a widespread species known from Europe (except Portugal and the Balkans), Morocco, Newfoundland and the USA.

Trichoniscus fragilis Racovitza, 1908
(Fig. 9)

Trichoniscus fragilis; VANDEL 1954a: 73; 1960: 333, fig. 158; 1968a: 356; BERON 1972a: 11.

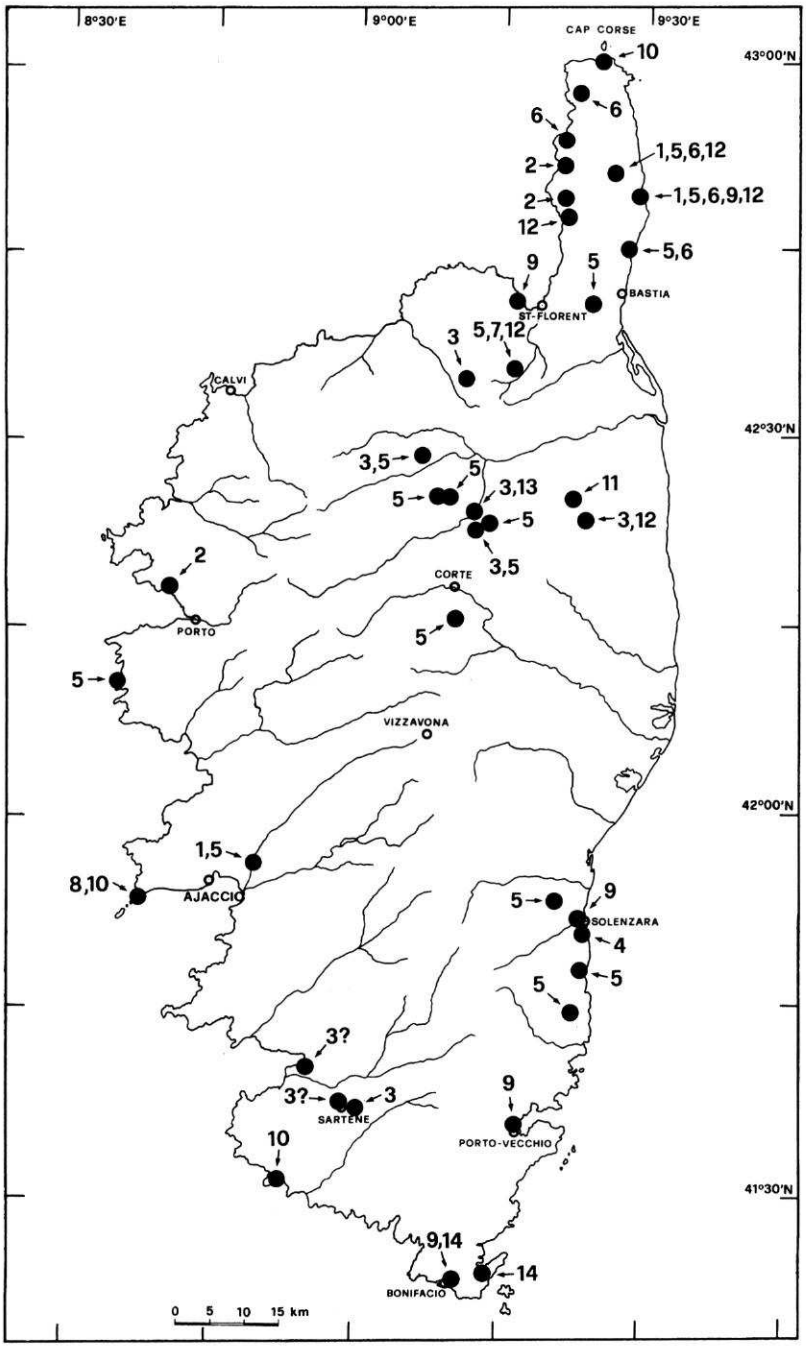

FIG. 9. — Distribution in Corsica of Trichoniscidae species (except *Trichoniscus pusillus provisorius*, *T. pygmaeus* and *Haplophthalmus danicus*): 1, *Finaloniscus briani*; 2, *F. franciscoloi*; 3, *Nesiotoniscus corsicus*; 4, *N. racovitzai*; 5, *Oritoniscus paganus*; 6, *O. ocellatus*; 7, *Oritoniscus* sp.; 8, *O. punctatus*; 9, *Trichoniscus fragilis*; 10, *T. halophilus*; 11, *T. pedronensis*; 12, *Cyrnoniscus remyi*; 13, *Carloniscus dollfusi*; 14, *Buddelundiella cataractae*.

MATERIAL EXAMINED. — 8 ♂♂, 8 ♀♀, entrance of the grotte de Sisco, leg. S. Taiti, 19.IV.1981; 4 ♂♂, 8 ♀♀, same locality, leg. S. Taiti and S. Vanni, 8.III.1994; 3 ♂♂, 3 ♀♀, Phare de Fornali (W of St-Florent), leg. S. Taiti, 17.VII.1978.

PREVIOUS RECORDS. — Sisco, Solenzara, Porto-Vecchio, Bonifacio (VANDEL 1960); grotte de St-Barthélémy (Bonifacio) (VANDEL 1968a; BERON 1972a); grotte de Sisco (BERON 1972a).

DISTRIBUTION. — Atlantic and Mediterranean coasts of France, Corsica, Tuscany, southern Italy, Crete and Algeria.

Trichoniscus halophilus Vandel, 1951
(Fig. 9)

MATERIAL EXAMINED. — 1 ♂, Barcaggio, Cap Corse, leg. S. Taiti and S. Campanelli, 14.X.1982; 2 ♂♂, 7 ♀♀, same locality, leg. S. Taiti and A. Poggesi, 19.VI.1984; 2 ♀♀, Punta de la Parata (W of Ajaccio), leg. S. Taiti and S. Vanni, 8.III.1994; 1 ♂, 6 ♀♀, Punta di e Botte di Tizzano (SW of Sartène), small stream near sea, leg. S. Taiti, 15.V.1982.

DISTRIBUTION. — This species is known from some French Mediterranean islands, Corsica, Sardinia, Tuscany, Sicily, Pantelleria Island, Lampedusa Island and Malta. In Morocco it has been recorded from a cave near Taza (VANDEL 1955).

Trichoniscus pedronensis Vandel, 1947
(Fig. 9)

Trichoniscus pedronensis Vandel, 1947: 49, figs 13-14; 1954a: 73; 1960: 332, fig. 157.

MATERIAL EXAMINED. — 2 ♂♂, 2 ♀♀ (syntypes), Monte San Pedrone [= San Petrone], 1600 m, versant est, dans la hêtraie sous les pierres, leg. P. Remy, 26.VIII.1942 (MNHN).

PREVIOUS RECORDS. — Monte San Petrone (VANDEL 1947, 1960).

DISTRIBUTION. — Known only from the type locality.

REMARKS

Investigations carried out in the beech woods of Monte San Petrone revealed no specimens that could be referred to this species. We re-examined the type material studied by VANDEL, but unfortunately pereopods 7 and pleopods 1 and 2 of both males are preserved in micropreparations which have deteriorated with age, so that we are not able to provide new illustrations of the sexual characters of this species.

Genus **HAPLOPHTHALMUS** Schoebl, 1861

Haplophthalmus danicus Budde-Lund, 1885

Haplophthalmus danicus; VANDEL 1954a: 73; 1960: 362, fig. 172.

MATERIAL EXAMINED. — Many ♂♂ and ♀♀ collected from the following localities: near marine de Giottani and near grotte de Brando (Cap Corse peninsula); Folelli, along Fium Alto; between Stazzona and the Eaux

d'Orezza; 3 km S of Ponte Leccia, along left bank of Golo river; Francardo, right bank of Golo river, near a spring.

PREVIOUS RECORDS. — Corsica, very common (VANDEL 1960).

DISTRIBUTION. — This species is known from all Europe, northern Africa, Asia Minor, St Helena Island, most of North America, Hawaii and Japan.

Genus **CYRNONISCUS** Vandel, 1953

Cyrnoniscus remyi Vandel, 1953
(Fig. 9)

Cyrnoniscus remyi Vandel, 1953a: 163, figs 5-6; 1954a: 73; 1960: 394, figs 190-191; 1968a: 360; BERON 1972a: 11; 1972b: 809.

MATERIAL EXAMINED. — 4 ♂♂, 6 ♀♀, grotte de Corte (Pietracorbara), leg. P. Beron, 27.XI.1967; 1 ♀, grotte de Sisco, leg. S. Taiti and S. Campanelli, 13.X.1982; 2 ♀♀, same locality, leg. W. Schawaller, 8.VIII.1980; 1 ♀, same locality, leg. S. Taiti and A. Poggesi, 27.VI.1984; 2 ♂♂, same locality, leg. S. Taiti and S. Vanni, 6.III.1994; 2 ♀♀, same locality, leg. S. Taiti, S. Vanni and A. M. Nistri, 3.IV.1995; 1 ♀, Nonza, near cemetery, leg. S. Taiti and A. Poggesi, 24.VI.1984; 1 ♂, 1 ♀, grotte des Tobi Pinnuti (Sorio), leg. S. Taiti, 15.X.1982; 14 ♀♀, 1 juv., 1.6 km from Stazzona, near road to the Eaux d'Orezza, leg. S. Taiti and A. Poggesi, 20.VI.1984.

PREVIOUS RECORDS. — Grotte de Corte (Pietracorbara), grotte de Gudrone (Sorio) (VANDEL 1953a, 1960, 1968a; BERON 1972a); grotte de Sisco, grotte de Ostriago (Pietracorbara) (VANDEL 1968a; BERON 1972a).

DISTRIBUTION. — *Cyrnoniscus remyi*, the sole species in the genus, is endemic to Corsica.

Genus **CARLONISCUS** Verhoeff, 1936

Carloniscus dollfusi (Carl, 1908)
(Fig. 9)

Carloniscus Dollfusi; VANDEL 1954a: 73.
Carloniscus dollfusi; VANDEL 1960: 388, figs 187A, 189.

RECORDS. — Francardo, right bank of Golo river (VANDEL 1960).

DISTRIBUTION. — This species occurs in the French Alps and Corsica.

REMARKS

VANDEL's record of this species on the right bank of the Golo river at Francardo needs to be confirmed. It was based on a single female specimen and several recent investigations in the same locality aimed at collecting this species have not been successful. It could be a matter of an occasional introduction: in fact, another species (*Haplophthalmus danicus*), certainly introduced, is abundant in that area.

Genus **BUDDELUNDIELLA** Silvestri, 1897

Buddelundiella cataractae Verhoeff, 1930
(Fig. 9)

Buddelundiella borgensis; VANDEL 1954a: 73.
Buddelundiella cataractae; VANDEL 1960: 410, figs 198-201.

RECORDS. — Bonifacio, Gurgazo (VANDEL 1960).

DISTRIBUTION. — This species has a widespread distribution in Europe.

Undetermined family
Genus **BUCHNERILLO** Verhoeff, 1942

Buchnerillo litoralis Verhoeff, 1942

Lereboulletia littoralis; VANDEL 1945: 104, figs V-XVI.
Buchnerillo littoralis; VANDEL 1954a: 73; 1960: 400, figs 195-197.

MATERIAL EXAMINED. — 1 ♂, 2 ♀♀, 1 juv., Barcaggio (Cap Corse), leg. S. Taiti and S. Campanelli, 14.X.1982; 1 ♂, 9 ♀♀, same locality, leg. S. Taiti and A. Poggesi, 19.VI.1984; 1 ♂, 7 ♀♀, 2 juvs, l'Île-Rousse, leg. S. Taiti, 16.VII.1978; 1 ♂, Punta de la Parata (W of Ajaccio), leg. S. Taiti, 14.V.1982.

PREVIOUS RECORDS. — Marine de Sisco (VANDEL 1945, 1960).

DISTRIBUTION. — It is known from the coasts of Madeira Island, Provence, Corsica, Sardinia, Tuscany, Ischia Island, Aegadean islands, Sicily and Malta.

Family STENONISCIDAE
Genus **STENONISCUS** Aubert & Dollfus, 1890

Stenoniscus pleonalis Aubert & Dollfus, 1890

Stenoniscus pleonalis; VANDEL 1944b: 24; 1954a: 73.
Stenoniscus pleonalis pleonalis; VANDEL 1962: 425, figs 206, 208-210; BERON 1972a: 11.

RECORDS. — Lavasina (S of Brando), marine de Sisco (VANDEL 1944b, 1962); grotte de Sdragonato (Bonifacio) (BERON 1972a).

DISTRIBUTION. — This species occurs on the northern coasts of the Mediterranean, from France to Greece, and Madeira Island. VANDEL (1968b) reported this species in the Galapagos, but this record needs confirmation.

REMARKS

VANDEL (1962) considers *S. carinatus* Silvestri, 1897 to be a subspecies of *S. pleonalis*. However, it is certain that the two taxa are distinct species (CARUSO 1976; TAITI & FERRARA 1980). Without re-examination, it is not possible to define to which of the two species belong

the specimens from Corsica recorded in the literature as *S. pleonalis*. However, it is very probable that both species are present in Corsica, as in the Tuscan Archipelago.

Stenoniscus carinatus Silvestri, 1897

Stenoniscus carinatus; LANZA & POGGESI 1986: 121, 178.

MATERIAL EXAMINED. — Many ♂♂ and ♀♀, Punta de la Parata (W of Ajaccio), leg. S. Taiti and S. Vanni, 8.III.1994; 3 ♂♂, 17 ♀♀, Capo Pertusato (SE of Bonifacio), leg. S. Taiti and S. Campanelli, 19.X.1982; 2 ♂♂, île Pietricaggiosa (Cerbicale), leg. S. Taiti and S. Campanelli, 17.V.1982.

PREVIOUS RECORDS. — Phare de Pertusato and île Pietricaggiosa (LANZA & POGGESI 1986).

DISTRIBUTION. — This species is known from Tenerife (Canaries), Portugal, Corsica, Sardinia, the Tuscan Archipelago, Sicily and surrounding islands (Ustica, Pantelleria, Aegadean and Pelagean islands), Malta and the coasts of the northern Adriatic. Most probably the records of *S. pleonalis* by SCHULTZ (1972) from Bermuda islands, and PAOLETTI & STINNER (1989) from Florida, belong to *S. carinatus*; this species is certainly present in Florida (many ♂♂ and ♀♀, Key West and Long Key, leg. S. Taiti, 15-16.XII.1984).

Family SCYPHACIDAE
Genus **ARMADILLONISCUS** Uljanin, 1875

Armadilloniscus candidus Budde-Lund, 1885
(Fig. 10A, B)

Armadilloniscus candidus; VANDEL 1954a: 74; 1962: 472, figs 234-235.

MATERIAL EXAMINED. — 1 ♂, 2 ♀♀, Tollare (Cap Corse), leg. S. Taiti, 18.IV.1981; 1 ♂, 1 ♀, l'Île-Rousse, leg. S. Taiti, 16.VII.1978; 7 ♂♂, 32 ♀♀, Punta de la Parata (W of Ajaccio), leg. S. Taiti, 14.V.1982; 1 ♂, 1 ♀, Fautea (between Solenzara and Porto-Vecchio), leg. S. Taiti, 17.V.1982.

PREVIOUS RECORDS. — Sisco (VANDEL 1962).

DISTRIBUTION. — This species occurs on the coasts of southern France, Corsica, Sardinia, Tuscany, Algeria, Tunisia, Malta and the Azores.

Armadilloniscus ellipticus (Harger, 1878)
(Fig. 10C, D)

MATERIAL EXAMINED. — 24 ♂♂, 37 ♀♀, Barcaggio (Cap Corse), leg. S. Taiti and S. Campanelli, 14.X.1982; 3 ♂♂, 2 ♀♀, same locality, leg. S. Taiti and A. Poggesi, 19.VI.1984.

DISTRIBUTION. — *Armadilloniscus ellipticus* is known from the Atlantic coasts of North America, the coasts of the Mediterranean, the Azores, Madeira Island, Madagascar, Malaysia, Hong Kong, Korea and Hawaiian islands (TAITI & FERRARA 1989b; GARTHWAITE *et al.* 1992).

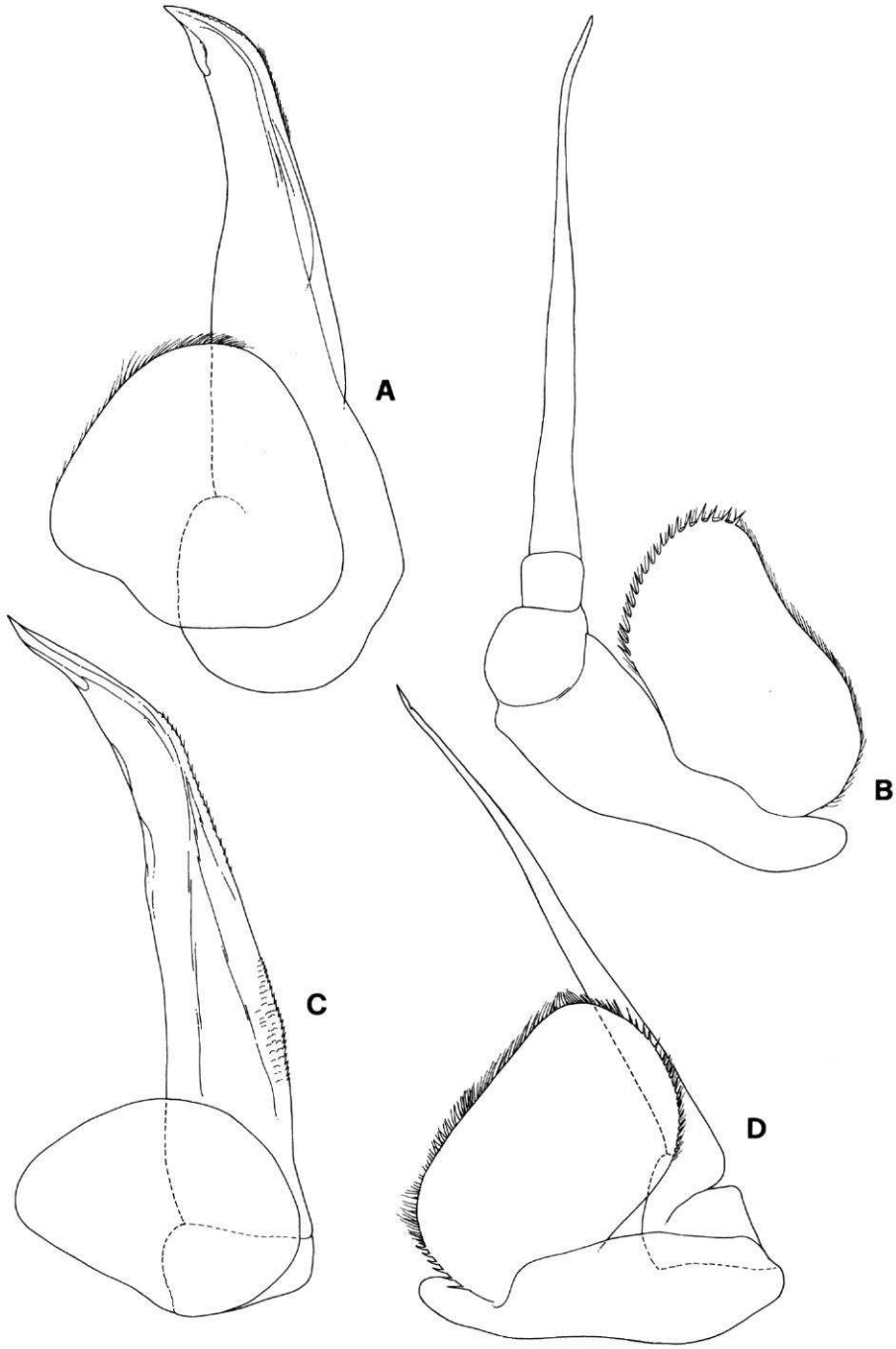

FIG. 10. — *Armadilloniscus candidus*, ♂: A, pleopod 1; B, pleopod 2. *Armadilloniscus ellipticus*, ♂: C, pleopod 1; D, pleopod 2.

REMARKS

The synonymy of *Armadilloniscus litoralis* Budde-Lund, 1885 with *A. ellipticus* has been proved recently by GARTHWAITE *et al.* (1992) on the basis of both morphological and genetic data.

Family HALOPHILOSCIIDAE
Genus **HALOPHILOSCIA** Verhoeff, 1908

Halophiloscia couchii (Kinahan, 1858)

Philoscia Couchii; DOLLFUS 1897: 72; ARCANGELI 1925: 50.
Philoscia Couchi; DOLLFUS 1899: 207.
Halophiloscia Couchi; VANDEL 1954a: 74.
Halophiloscia (Halophiloscia) couchi; VANDEL 1962: 477, figs 237-238.

MATERIAL EXAMINED. — Many ♂♂ and ♀♀ collected from the following localities: Barcaggio and Tollare (Cap Corse); marine de Sisco; Phare de Fornali (W of St-Florent); anse de Faggiola (désert des Agriates); Punta de la Parata (W of Ajaccio); Golfo di Sogno (N of Porto-Vecchio).

PREVIOUS RECORDS. — Bastia and Porto-Vecchio (DOLLFUS 1897, 1899); Etang de Biguglia (DOLLFUS 1899).

DISTRIBUTION. — This widespread species populates all the coasts of the Mediterranean, the Atlantic coasts of Europe and Africa as far south as Dakar, the Azores, Canaries, Madeira and Cape Verde. It has also been introduced to Virginia, Bermuda, Argentina and Western Australia.

Halophiloscia hirsuta Verhoeff, 1928

Halophiloscia hirsuta; VANDEL 1954a: 74; LANZA & POGGESI 1986: 120, 176, 178, 179.
Halophiloscia (Halophiloscia) hirsuta; VANDEL 1962: 483, figs 241-242; BERON 1972a: 12.
Halophiloscia sp.; Beaucournu, 1967: 562.

MATERIAL EXAMINED. — Many ♂♂ and ♀♀ collected from the following localities: Tollare (Cap Corse); marine de Giottani (between Nonza and Centuri-Port); entrance of the grotte de Sisco; anse de Faggiola (désert des Agriates); Punta de la Parata (W of Ajaccio); Tizzano and environs (SW of Sartène); Capo Pertusato (SE of Bonifacio); île de la Giraglia; îlot Intermediaire (Finocchiarola, E of Cap Corse); île Pietricaggiosa (Cerbicale); îlot La Folaca (near Palombaggia, SE of Porto-Vecchio); îlot Sperduto Piccolo (E of Île Cavallo); îlot Cala di u Ghiunco (île Lavezzi).

PREVIOUS RECORDS. — Grotte des Pigeons (Sagone), grotte de Saragonato (Bonifacio) (BERON 1972a); Corsica (VANDEL 1954a, 1962); îlot Intermediaire (Finocchiarola), île Pietricaggiosa (Cerbicale), îlot Toro Grande, îlot La Folaca (LANZA & POGGESI 1986).

DISTRIBUTION. — This species is known from the north-central coasts of the Mediterranean, from France to Greece.

Halophiloscia ischiana Verhoeff, 1933

MATERIAL EXAMINED. — 3 ♂♂, 6 ♀♀, Golfo di Sogno (N of Porto-Vecchio), leg. S. Taiti, 13.IV.1981.

DISTRIBUTION. — This species was previously recorded from southern France, Sardinia, Tuscany (Giglio Island and Monte Argentario promontory), Campania (Ischia Island and Sorrento), and the Balearic islands (Menorca Island).

Halophiloscia tyrrhena Verhoeff, 1928

MATERIAL EXAMINED. — 1 ♀, Barcaggio (Cap Corse), leg. S. Taiti and S. Campanelli, 14.X.1982; 1 ♂, 3 ♀♀, marine de Sisco, leg. S. Taiti and S. Campanelli, 12.X.1982; 3 ♂♂, 3 ♀♀, Punta de la Parata (W of Ajaccio), leg. S. Taiti and S. Vanni, 8.III.1994.

DISTRIBUTION. — It is known from the Mediterranean coasts of France, Corsica, Sardinia, Liguria, Tuscany (Gorgona and Elba islands, promontories of Monte Massoncello, Uccellina and Monte Argentario).

Genus **STENOPHILOSCIA** Verhoeff, 1908

Stenophiloscia zosterae Verhoeff, 1928

MATERIAL EXAMINED. — Many ♂♂ and ♀♀ collected from the following localities: Barcaggio (Cap Corse); marine de Pietracorbara; marine de Sisco; l'Île-Rousse; Calzarello and environs (E of Ghisonaccia).

DISTRIBUTION. — Known from southern France, Corsica, Sardinia, Liguria, Tuscany, Sicily and surrounding islands (Ustica, Aeolian islands, Pantelleria, Pelagean islands), Malta, Dalmatia and Greece.

Family PHILOSCIIDAE
Genus **CHAETOPHILOSCIA** Verhoeff, 1908

Chaetophiloscia elongata (Dollfus, 1884)

Philoscia pulchella Budde-Lund, 1885: 215.
Philoscia elongata; SCHARFF 1894: 163; DOLLFUS 1897: 95; 1899: 198; Arcangeli, 1925: 48.
Chaetophiloscia elongata; VANDEL 1954a: 74.

MATERIAL EXAMINED. — Many ♂♂ and ♀♀ collected from the following localities: Barcaggio and Tollare (Cap Corse); Centuri-Port; near Meria; marine de Pietracorbara; marine de Giottani (between Nonza and Centuri-Port); Sta Catterina de Sisco; between Ogliastro and Lainosa (N of Nonza); Nonza; near Crosciano, along Sisco river; near Erbalunga; near grotte de Brando; col de Teghime (W of Bastia); désert des Agriates; plage d'Ostriconi (NE of Lozari); between Casatorra and Oletta; Asco river valley; Folelli, along Fium Alto; Prunete (E of Cervione); plage de Caspio (NW of Porto); Sollacaro (N of Propriano); near Propriano; Fautea (between Solenzara and Porto Vecchio); Lovo Santo, swamp at mouth of Cavo river; source de Caldane (NE of Sartène); Golfo di Sogno (N of Porto-Vecchio); Monte Rosso (SE of Sartène); Tizzano and baie d'Avena (SW of Sartène); golfe de Sant'Amanza (NE of Bonifacio).

PREVIOUS RECORDS. — Ajaccio, Bastia (SCHARFF 1894, DOLLFUS 1899); Sartène, Bonifacio (DOLLFUS 1899).

DISTRIBUTION. — This species is widespread in the lands encompassing the Mediterranean Sea.

Chaetophiloscia sicula Verhoeff, 1908

Chaetophiloscia sicula; VANDEL 1954a: 74; 1962: 496, fig. 247.

MATERIAL EXAMINED. — Many ♂♂ and ♀♀ collected from the following localities: Barcaggio (Cap Corse); Centuri-Port; between Macinaggio and Meria; Guado Grande (N of Nonza); near grotte de Brando; Cardo (W of Bastia); near San Martino-di-Lota; Bastia; défilé de Lancone (W of Casatorra); Asco river valley; Francardo (N of Corte); near Propriano; île de la Giraglia.

PREVIOUS RECORDS. — Corsica (VANDEL 1954a, 1962).

DISTRIBUTION. — Known from Menorca Island, southern France, Corsica, all the Italian peninsula, the Tuscan Archipelago (islands of Gorgona, Elba, Palmaiola, Giglio and Giannutri), Ischia Island, Sicily and Greece.

Chaetophiloscia cellaria (Dollfus, 1884)

Philoscia cellaria; DOLLFUS 1897: 91.

Chaetophiloscia cellaria; REMY 1950: 9; VANDEL 1953a: 163; 1954a: 74; 1962: 499, fig. 248; BERON 1972a: 12; SCHMALFUSS 1990: 170.

MATERIAL EXAMINED. — Many ♂♂ and ♀♀ collected from the following localities: between Macinaggio and Meria; marine de Giottani (between Nonza and Centuri-Port); grotte de Sisco; grotte de Brando and environs; Miomo; Cardo (W of Bastia); île de la Giraglia.

PREVIOUS RECORDS. — Bonifacio (caves) (DOLLFUS 1897, VANDEL 1962); grotte de Brando (REMY 1950; VANDEL 1953a, 1962; BERON 1972a); grotte de St François (Bonifacio) (VANDEL 1953a; BERON 1972a); grotte de Sisco (VANDEL 1962; BERON 1972a); cave N of Bastia (SCHMALFUSS 1990).

DISTRIBUTION. — Widespread in the northern Mediterranean region, from Spain to Lebanon (SCHMALFUSS 1991).

Genus **CTENOSCIA** Verhoeff, 1928

Ctenoscia dorsalis Verhoeff, 1928

MATERIAL EXAMINED. — Many ♂♂ and ♀♀, Tollare (Cap Corse), leg. S. Taiti, 18.IV.1981; 1 ♂, 2 ♀♀, same locality, leg. S. Taiti and A. Poggesi, 19.VI.1984.

DISTRIBUTION. — This species is known from western Spain, Corsica, Sardinia, Liguria, Sicily and surrounding islands (Aeolian and Aegadean islands, Pantelleria and Pelagean islands), and Malta.

Ctenoscia minima (Dollfus, 1892)

Ctenoscia minima; Beron, 1972a: 11.

RECORDS. — Grotte de Sisco (BERON 1972a).

DISTRIBUTION. — Portugal, Spain, Menorca Island, La Galite Archipelago and Corsica (?).

REMARKS

Ctenoscia minima differs from *C. dorsalis* in having the male pleopod 1 endopod bent outwards instead of straight. The record of this species by BERON (1972a) is doubtful, since it is based on a single specimen with no indication of the sex. Most probably it refers to *C. dorsalis*.

Genus **PHILOSCIA** Latreille, 1804

Philoscia affinis Verhoeff, 1908

Philoscia muscorum; SCHARFF 1894: 163; DOLLFUS 1899: 190; ARCANGELI 1925: 47; VERHOEFF 1926: 263.

Philoscia affinis; VANDEL 1954a: 74; 1962: 511, figs 254C, 255; BERON 1972a: 12.

MATERIAL EXAMINED. — Many ♂♂ and ♀♀ collected from the following localities: Barcaggio and Tollare (Cap Corse); Centuri-Port; Camera (near Centuri); Rogliano; between Macinaggio and Meria; Morsiglia; 2 km SE of col de Ste-Lucie (between Pino and Luri); 2 km E of Luri; Carbonacce (S of Luri); marine de Pietracorbara; Ponticello (near Pietracorbara); Selmacci (SW of Pietracorbara); St-Léonard (W of marine de Pietracorbara); Ogliastro (N of Nonza); Guado Grande (N of Nonza); near Crosciano along Sisco river; marine de Sisco; Nonza; near Erbalunga; near grotte de Brando; Sta Maria-di-Lota; Cardo (W of Bastia); désert des Agriates; Casta (SW of St-Florent); Olmeta-di-Tuda; col de S. Stefano (S of Olmeta-di-Tuda); défilé de Lancone; 1 km N of San-Gavino-di-Tenda; plage d'Ostriconi (NE of Lozari); Urtaca; near Murato; 1 km W of Altiani (SE of Speloncato); near grotte de Pietralbello (Moltifao); Asco river valley; 2 km SW of Ponte Nuovo along Golo river; 3 km S of Ponte Leccia; forêt de Bonifato (SE of Calvi); Francardo (N of Corte); Lano (NW of Corte); Punta di Chiarsgioli (Monte San Petrone); near the Eaux d'Orezza; near Stazzona; 2 km S of Carticasi; Prunete (E of Cervione); 2 km S of Corte; SE of Porto; near Cargèse; col de Vizzavona; 7 km SSW of Ghisoni; 1 km E of Tolla (Prunelli river valley); between Alza and Argiavara (col de Bavella); col de Bavella; between col de Bavella and Punta Velaco; 2 km N of Aullène; between col de St-Eustache and col de Tana (W of Aullène); near Zonza; below chapelle Pianelli, between Casalabriva and Olmeto; Taglio Rosso (Ste-Lucie-de-Porto-Vecchio); Lovo Santo, swamp at mouth of Cavo river; near Propriano; 2 km W of Orone (W de l'Ospedale); source de Caldane (NE of Sartène); Golfo di Sogno (N of Porto-Vecchio); Tizzano and baie d'Avena (SW of Sartène); golfe de Sant'Amanza (NE of Bonifacio); Bonifacio; Capo Pertusato (SE of Bonifacio).

PREVIOUS RECORDS. — Ajaccio (SCHARFF 1894); Bastia (SCHARFF 1894, DOLLFUS 1899, ARCANGELI 1925); St Florent (SCHARFF 1894); Corsica, very common (VANDEL 1962); grotte de Grottone (Lama) (BERON 1972a).

DISTRIBUTION. — This widespread species has been recorded from Italy, Slovenia, Croatia, Germany, France, northern Spain, Algeria, and perhaps Tunisia (VANDEL 1962). It occurs on all the Tyrrhenian islands and Malta.

REMARKS

According to VANDEL (1954a, 1962) the records from Corsica of *P. muscorum* (Scopoli, 1763) most probably refer to *P. affinis*. Also in our opinion this is the only species of the genus present in Corsica, as shown by the abundant material examined. Thus, *P. muscorum* is considered not to belong to the Corsican fauna.

Genus **TIROLOSCIA** Verhoeff, 1926

Tiroloscia corsica corsica (Dollfus, 1888)

Philoscia corsica Dollfus, 1888: 10, figs 1-14; SCHARFF 1894: 163; DOLLFUS 1897: 94; 1899: 207; ARCANGELI 1925: 47.

Philoscia (Tiroloscia) corsica; ARCANGELI 1950: 130; VANDEL 1954a: 74.

Tiroloscia corsica; VANDEL 1962: 518, fig. 256.

MATERIAL EXAMINED. — Many ♂♂ and ♀♀ collected from the following localities: Barcaggio and Tollare (Cap Corse); marine de Giottani (between Nonza and Centuri-Port); Sta Catterina, N of marine de Sisco; col de

S. Stefano (S of Olmeta-di-Tuda); entrance of the grotte de Grottone, near Lama; 1 km W of Altiani (SE of Speloncato); between Barchetta and Casamozza on the left bank of Golo river; 2 km SW of Ponte Nuovo (Golo river valley); Asco river valley, NW of Ponte Leccia; S of Moltifao (Asco river valley); forêt de Bonifato; near grotte de Sabara (near Castiglione); Punta di Chiarsgioli (Monte San Petrone); Francardo; Albertacce (Golo river valley); col de Vergio (NE of Evisa); forêt de Valdo-Niello; forêt de la Restonica; near Porto; SSE of Evisa, along Porto river; near col de Sevi (SE of Evisa); Venaco; Lac de Melo (Restonica river valley); between Volta and Scandulaie along a tributary stream of Tavignano river (NW of Aléria); 6 km SW of Vico, Sagone river valley; near Ghisoni; col de Vizzavona; Capannelle (SE of Vizzavona); Bocognano; col de Verde (S of Ghisoni); 1 km E of Tolla (Prunelli river valley); Palneca (Taravo river valley); S of col de Marcuccio (between Cauro and Bastelica); Monte Incudine; between Pietrosella and Fogolina (SE of Porticcio); 3 km N of col de la Vaccia (N of Aullène); col de Bavella; Punta Velaco (Bavella); between col de St-Eustache and col de Tana (W of Aullène); forêt de Valle Mala, near col de St-Eustache; Chiovone river valley (Aullène); near Aullène; near Serra-di-Scopamène (S of Aullène); 4 km E of Zonza; between Zonza and Quenza; Punta di u Carapono (Coti-Chiavari); between Casalabriva and Olmeto; S of col d'Ilarata, between Zonza and l'Ospedale; between l'Ospedale and Zonza, E of Punta di u Diamante; l'Ospedale and surroundings; near Propriano; Monte Rosso (SE of Sartène); Tizzano and environs (SW of Sartène); La Trinité (N of Porto-Vecchio).

PREVIOUS RECORDS. — L'Ospedale, Vizzavona, Vico (DOLLFUS 1888, 1897, 1899; ARCANGELI 1925); Porto, Sartène, Porto-Vecchio, Melo (DOLLFUS 1888, 1897; ARCANGELI 1925); Ajaccio (SCHARFF 1894; DOLLFUS 1897); Corte (SHARFF 1894); Gravona (DOLLFUS 1897).

DISTRIBUTION. — The nominal subspecies is present in Corsica and Sardinia. A closely related subspecies, *T. corsica giustii* Taiti & Ferrara, 1980, is known from the islands of Capraia, Gorgona and Montecristo (unpublished datum), in the Tuscan Archipelago.

Tiroloscia macchiae Verhoeff, 1931

Philoscia (Tiroloscia) macchiae Verhoeff, 1931: 545.

MATERIAL EXAMINED. — Many ♂♂ and ♀♀ collected from the following localities: Ersa; Rogliano; Camera and environs (near Centuri); between marine de Meria and Macinaggio; Morsiglia; between Morsiglia and Pastina; near Meria; near Carbonacce (S of Luri); marine de Giottani (between Nonza and Centuri-Port); St-Léonard (W of marine de Pietracorbara); marine de Pietracorbara; Sta Catterina (N of marine de Sisco); near Crosciano along Sisco river; marine de Sisco; Nonza; near grotte de Brando; Erbalunga; Cardo (W of Bastia).

PREVIOUS RECORDS. — Corsica (VERHOEFF 1931).

DISTRIBUTION. — *Tiroloscia macchiae* is known from the Cap Corse peninsula, the south-western part of the Tuscan mainland and the Tuscan Archipelago (Elba and Pianosa islands) (TAITI & FERRARA 1989a, fig. 83).

Tiroloscia montana n.sp.
(Figs 11, 12)

MATERIAL EXAMINED. — 1 ♂ holotype (MZUF), 1 ♂ juv., 1 ♀ paratypes (MNHN-Is4102), 6 ♀♀, 6 juvs paratypes (MZUF), Haut-Asco, leg. S. Taiti and A. Poggesi, 21.VI.1984; 1 ♀ paratype (MZUF), Haut-Asco, 1600 m, leg. S. Taiti and S. Campanelli, 16.X.1982; 9 ♀♀ paratypes (SMNS), Haut-Asco, 1500-1600 m, leg. W. Schawaller, 27.VIII.1980; 1 ♂ juv., 9 ♀♀ paratypes (MZUF), forêt de Carozzica, *ca.* 2 km NE of Haut-Asco, leg. S. Taiti and A. Poggesi, 21.VI.1984.

ETYMOLOGY. — L. *montanus* = montane. The name refers to the collecting sites of the specimens, at an altitude of over 1500 m.

DESCRIPTION

Maximum dimensions: ♂, 6.5 × 2.5 mm; ♀, 8.5 × 4 mm.

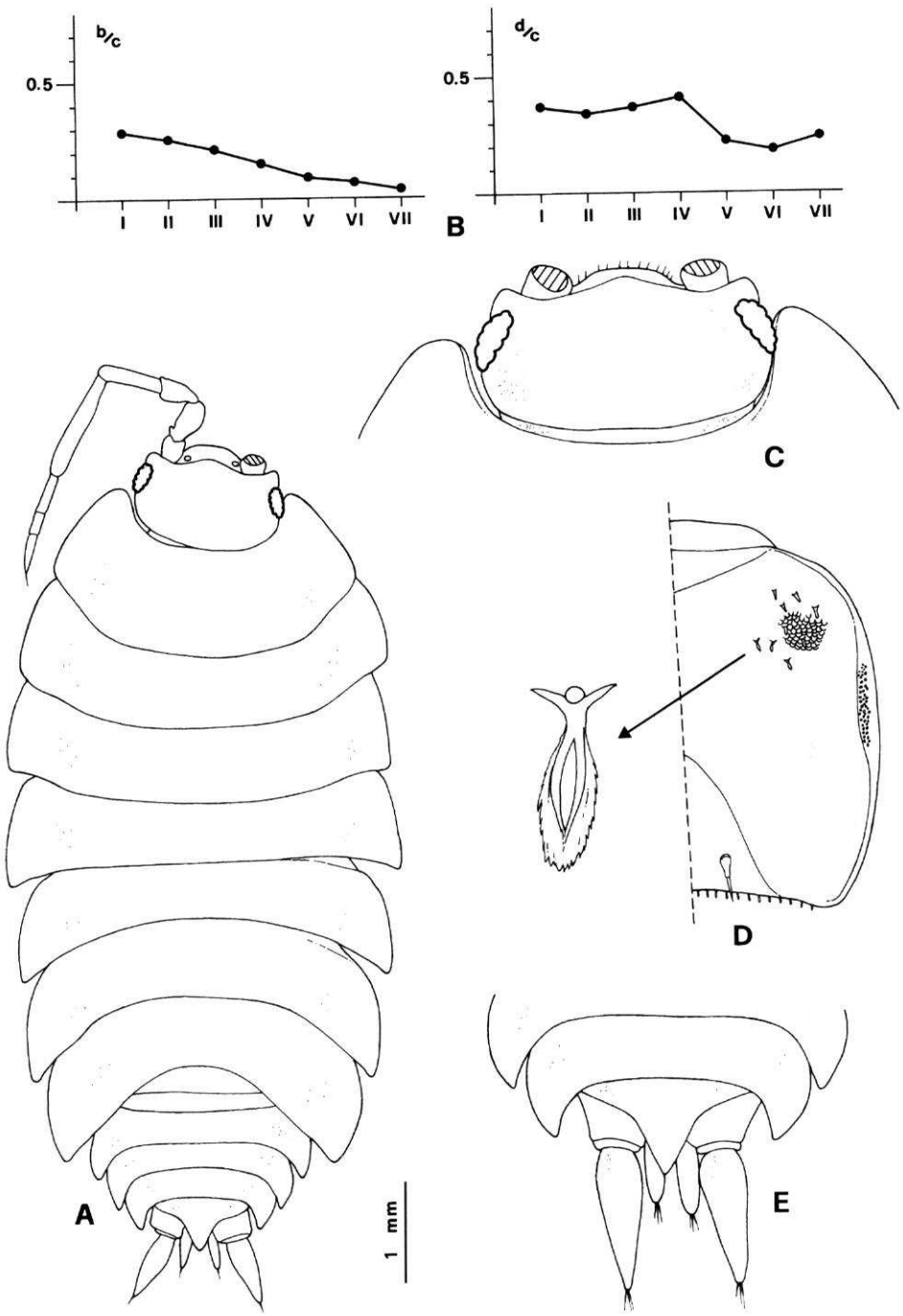

FIG. 11. — *Tiroloscia montana* n.sp.: A, adult ♀, dorsal; B, co-ordinates of noduli laterales; C, cephalon; D, right epimeron of pereonite 4; E, telson and uropods.

Brown colour with the usual yellowish muscle spots. Dorsal cuticle covered with numerous tiny semicircular scales and many lanceolate scale-spines. Marginal line of pereonites slightly distinct, more distant from the lateral margin in the anterior half where the numerous gland pores (> 50) are situated. Co-ordinates of the noduli laterales as in Fig. 11B. Eye with 15-17 ommatidia. Cephalon with median lobe at obtuse angle, slightly protruding; lateral lobes small, rounded; frontal line slightly bent down in the middle; suprantennal line straight. Pereonite 1 with posterior margin broadly rounded; pereonite 2 with subright posterior corners; pereonites 3-7 with posterior corners progressively more acute. Pleonites 3-5 with large falciform epimera, directed backwards. Telson triangular with broken sides and acute apex. Antenna with fifth article of peduncle slightly longer than flagellum; ratio of flagellar articles 5:3:5. Mandible with molar penicil dichotomized. Maxillular outer branch bearing ten (five cleft) teeth; inner branch with two penicils and a short posterior point. Maxillipedal endite with three strong spines at apex and no penicil. Pleopodal exopods with no respiratory areas.

Male

Pereopods 1-4 with a brush of short spines on merus and carpus. Pereopod 7 without distinct modifications. Pleopod 1 exopod ovoidal, with a slight indication of a posterior point; endopod with straight distal part bearing a line of short spines, apex with two spines and a tuft of setae. Pleopod 2 endopod slightly longer than exopod.

REMARKS

Tiroloscia montana is readily distinguished from *T. corsica corsica* and *T. macchiae*, the other two species in the genus present in Corsica, by the cephalon with more developed lateral lobes, the different shape of the dorsal scale-spines, the telson with broken sides, and the shape of the male pleopod 1 exopod with a slight indication of a posterior point.

In the shape of the dorsal scale-spines the new species resembles *T. esterelana* (Verhoeff, 1918), from which it differs in the broader body shape, larger pleonal epimera, the shape of the cephalon, telson and male pleopod 1.

It differs from *T. exigua* (Budde-Lund, 1885) and *T. pyrenaica* (Dollfus, 1897) in the shape of the scale-spines, telson and male pleopod 1 endopod; from *T. apenninorum* Verhoeff, 1908 essentially in the lack of a hook-shaped process on the male pereopod 7 merus.

Family ONISCIDAE
Genus **SARDONISCUS** Arcangeli, 1939

Sardoniscus pygmaeus (Budde-Lund, 1885)

Philoscia pygmaea Budde-Lund, 1885: 212; DOLLFUS 1887: 11; 1897: 91; 1899: 207.

Phalloniscus pygmaeus; VANDEL 1954a: 74; 1954c: 226, figs A-D; 1962: 532, figs 262-265; ARCANGELI 1954a: 123.

MATERIAL EXAMINED. — Many ♂♂ and ♀♀ collected from the following localities: Barcaggio (Cap Corse); Ersa; Camera (near Centuri); Rogliano; between Macinaggio and marine de Meria; between Morsiglia and Pastina;

2 km SE of col de Ste-Lucie (between Pino and Luri); Minervio (S of Pino); Carbonacce (S of Luri); marine de Giottani (between Nonza and Centuri-Port); Ponticello (near Pietracorbara); St-Léonard (W of marine de Pietracorbara); near Crosciano along Sisco river; Sta Catterina, N of marine de Sisco; between Ogliastro and Lainosa (N of Nonza); near Erbalunga; near grotte de Brando; Lavasina (S of Brando); Sta Maria-di-Lota; San Martino-di-Lota; Cardo (W of Bastia); col de Teghime (W of Bastia); near Murato (St Florent); Bevinco river valley, below col de S. Stefano; 1 km W of Altiani (SE of Speloncato); near Ponte Nuovo along Golo river; near grotte de Pietralbello (Moltifao); near Ponte Leccia; left bank of Golo river, 3 km S of Ponte Leccia; forêt de Carozzica

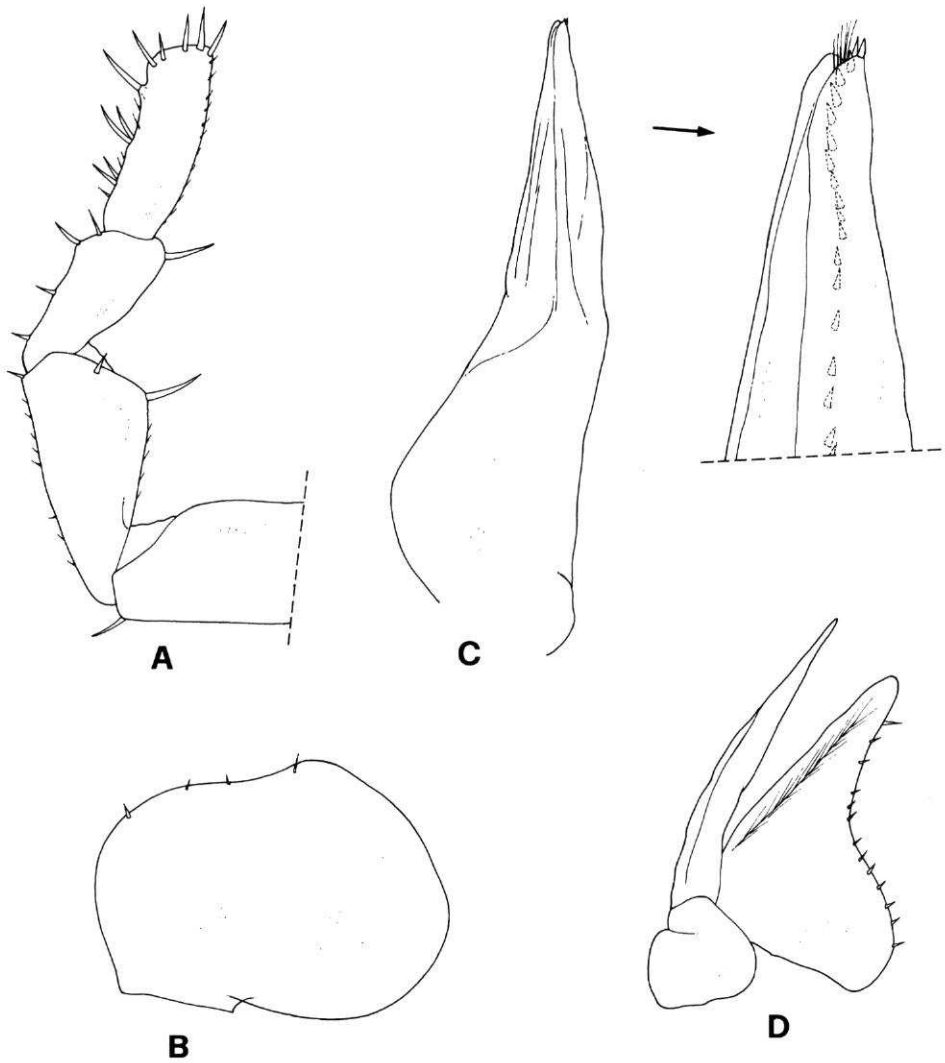

FIG. 12. — *Tiroloscia montana* n.sp., ♂: A, pereopod 7; B, pleopod 1 exopod; C, pleopod 1 endopod; D, pleopod 2.

(near Haut-Asco); Francardo (N of Corte); Castirla (N of Corte); Lano (NW of Corte); near the Eaux d'Orezza (NE of Piedicroce); 2 km S of Carticasi (NE of Corte); Cervione; forêt de Valdo-Niello (Golo river valley); Punta Cervello (SE of Cauro); Zicavo; between Pietrosella and Fogolina (SE of Porticcio); between Alza and Argiavara (col de Bavella); col de Bavella; between col de St-Eustache and col de Tana (SW of Aullène); Chiovone river valley, near Aullène; Serra-di-Scopamène (S of Aullène); 4 km E of Zonza; valley below chapelle Pianelli, between Casalabriva and Olmeto; Golfo di Sogno (N of Porto-Vecchio); Monte Rosso, SE of Sartène; Orasi (S of Sartène); near Tizzano, baie d'Avena (SW of Sartène); Viagenti (near Pianotolli, NW of Bonifacio); near Ermitage de la Trinité (W of Bonifacio).

PREVIOUS RECORDS. — La Solenzara (DOLLFUS 1897, 1899; VANDEL 1962); Bastia, Francardo, Lano, Solaro, Sari-di-Porto-Vecchio, Ste-Lucie-de-Porto-Vecchio, Propriano, Bonifacio (VANDEL 1954c, 1962).

DISTRIBUTION. — *Sardoniscus pygmaeus* is known from Corsica, Sardinia, Elba Island and some hills of central-western Tuscany (TAITI & FERRARA 1989a, fig. 84).

REMARKS

The genus *Sardoniscus* was erected by ARCANGELI (1939) to include the new species *S. pusillus* from Sardinia, described on specimens that he had previously identified as *Agabiformius hirtus* (Aubert & Dollfus, 1890) (ARCANGELI 1925). VANDEL (1954a) states that *S. pusillus* corresponds to "*Philoscia*" *pygmaea* Budde-Lund, 1885 and it belongs to *Phalloniscus* Budde-Lund, 1908, a genus instituted to accommodate some species from New Zealand. According to the French author the genus is also present in the Mediterranean and neotropical regions. Thus, according to VANDEL the correct taxonomic status of the species is *Phalloniscus pygmaeus* (Budde-Lund, 1885), of which *Sardoniscus pusillus* is a junior synonym. The ascription of this species to *Phalloniscus* was questioned by ARCANGELI (1954a) and FERRARA & TAITI (1978), but this status has been maintained in anticipation of comparison of species of *Phalloniscus* from New Zealand. However, we have to point out that, in one of his latest papers, VANDEL himself (1977) states that the genus *Phalloniscus* is endemic to New Zealand.

We have had the possibility recently to examine two specimens (1 ♂, 1 ♀) collected at Wellington, New Zealand, belonging to *Phalloniscus armatus* Bowley, 1935. Even if this is not the type-species of *Phalloniscus*[1], it certainly belongs to this genus. The Corsican species differs from *P. armatus* in some important generic characters and cannot be ascribed to *Phalloniscus*. In fact, it has a single nodulus lateralis (two in *P. armatus*) per side on the pereonites (see VANDEL 1962: 35 and FERRARA & TAITI 1978: 31, pl. 3, fig. XI, 1) and some cleft teeth (all teeth entire in *P. armatus*) on the outer branch of the maxillule. Thus, we consider valid the genus *Sardoniscus*, to which the species *pygmaeus* must be ascribed. All the other species from the Mediterranean area presently in *Phalloniscus* must be re-examined to define their correct generic position.

In a recent paper, SCHULTZ (1995) transferred the species of *Phalloniscus* from the neotropical region (some only tentatively) to the new genus *Novamumdoniscus*.

1. The type species of *Phalloniscus* is *Oniscus punctatus* Thomson, 1879, which, due to its vague description, has never been encountered again. In fact VANDEL (1977: 12) propose to suppress this name.

Family PLATYARTHRIDAE
Genus **PLATYARTHRUS** Brandt, 1833

Platyarthrus costulatus Verhoeff, 1908
(Figs 13A, 15)

Platyarthrus Nabeleki Frankenberger, 1939: 115, figs 1-2.

Platyarthrus costulatus; ARCANGELI 1950: 126; VANDEL 1953a: 163; 1954a: 73; LANZA & POGGESI 1986: 120, 178, 179.

Platyarthrus costulatus costulatus; VANDEL 1962: 461, figs 230, 231A; BERON 1972a: 11.

MATERIAL EXAMINED. — Many ♂♂ and ♀♀ collected from the following localities: Capo Grosso, Tollare and Barcaggio (Cap Corse); moulin Mattei (NE of Centuri-Port); Ersa; Rogliano; Centuri-Port; Camera (near Centuri); between Macinaggio and marine de Meria; Morsiglia; near Meria; marine de Giottani (between Nonza and Centuri-Port); Sta Catterina, N of marine de Sisco; Nonza; anse de Faggiola (désert des Agriates); col de S. Stefano (S of Olmeta-di-Tuda); near Sorio; col de S. Colombano (E of Belgodère); left bank of Golo river between Barchetta and Casamozza; near grotte de Pietralbello (Moltifao); Asco river valley; near Folelli, along Fium Alto; Francardo (N of Corte); Prunete (E of Cervione); plage de Caspio (NW of Porto); Casanova (S of Corte); between Volta and Scandulaie, along a tributary stream of Tavignano river (NW of Aléria); Aléria; Punta de la Parata (W of Ajaccio); Porticcio; between Pietrosella and Fogolina (SE of Porticcio); Punta di u Carapono (Coti-Chiavari); valley below chapelle Pianelli, between Casalabriva and Olmeto; Lovo Santo, swamp at mouth of Cavo river; Bocca Albitrina (SW of Sartène); la Trinité (N of Porto-Vecchio); Viagenti (near Pianotolli, NW of Bonifacio); Ermitage de la Trinité (NW of Bonifacio); Capo Pertusato (SE of Bonifacio); île de la Giraglia; île Pietricaggiosa (Cerbicale); îlot Toro Grande; îlot du Torello.

PREVIOUS RECORDS. — Ajaccio (FRANKENBERGER 1939); grotte des Paladini (Solaro) (VANDEL 1953a; BERON 1972a); all Corsica (VANDEL 1962); grotte de Sisco II (BERON 1972a); île Pietricaggiosa, îlot du Torello, îlot Toro Grande (LANZA & POGGESI 1986).

DISTRIBUTION. — This species occurs in northern Spain, the Balearic islands, Atlantic and Mediterranean part of France, Morocco and Algeria. In Italy it is recorded from Liguria, Tuscany, including the Tuscan Archipelago (Capraia, Gorgona and Elba islands), Sardinia, Ischia Island, Tremiti islands, Sicily and surrounding islands (Aeolian, Aegadean and Pantelleria).

Platyarthrus corsicus n.sp.
(Figs 13B, C, 14, 15)

MATERIAL EXAMINED. — 1 ♂ holotype (MZUF), 2 ♂♂, 3 ♀♀ paratypes (MNHN-Is4098), many ♂♂ and ♀♀ paratypes (MZUF), between Cauro and col de St-Georges (E of Ajaccio), 650-680 m, leg. S. Taiti, 14.V.1982; 1 ♂, 8 ♀♀ paratypes (MZUF), Punta de la Parata (W of Ajaccio), leg. S. Taiti, 14.V.1982; many ♂♂ and ♀♀ paratypes (MZUF), between Pietrosella and Fogolina (SE of Porticcio), ilex and arbutus wood, leg. S. Taiti and S. Campanelli, 21.X.1982; 2 ♂♂, 1 ♀ paratypes (MZUF), between Alza and Argiavara (col de Bavella), along the first left tributary stream of S. Pietro river, ilex grove, leg. S. Taiti, 11.VII.1978; 2 ♂♂, 3 ♀♀ paratypes (MNHN-Is4099), many ♂♂ and ♀♀ paratypes (MZUF), col de Bavella, leg. S. Taiti, 14.IV.1981; 4 ♂♂, 6 ♀♀ paratypes (MZUF), between col de St Eustache and col de Tana (W of Aullène), coniferous forest, leg. S. Taiti and S. Campanelli, 22.X.1982; 2 ♂♂, 3 ♀♀ paratypes (MZUF), forêt de Valle Mala (S of col de St-Eustache), leg. S. Taiti and S. Campanelli, 22.X.1982; many ♂♂ and ♀♀ paratypes (MZUF), Punta di u Carapono (Coti-Chiavari), leg. S. Taiti and S. Campanelli, 21.X.1982; many ♂♂ and ♀♀ paratypes (MZUF), valley below chapelle Pianelli, between Casalabriva and Olmeto, leg. S. Taiti and S. Campanelli, 22.X.1982; 1 ♀ paratype (MZUF), Fiumicicoli river valley, 700 m, leg. W. Schawaller, 1.VIII.1980; many ♂♂ and ♀♀ paratypes (MZUF), Monte Rosso (SE of Sartène), ilex grove and meadow, leg. S. Taiti and S. Campanelli, 20.X.1982; 2 ♂♂, 3 ♀♀ paratypes (MNHN-Is4096), many ♂♂ and ♀♀ paratypes (MZUF), Tizzano and surroundings (SW of Sartène), ilex grove, leg. S. Taiti and S. Campanelli, 15.V.1982.

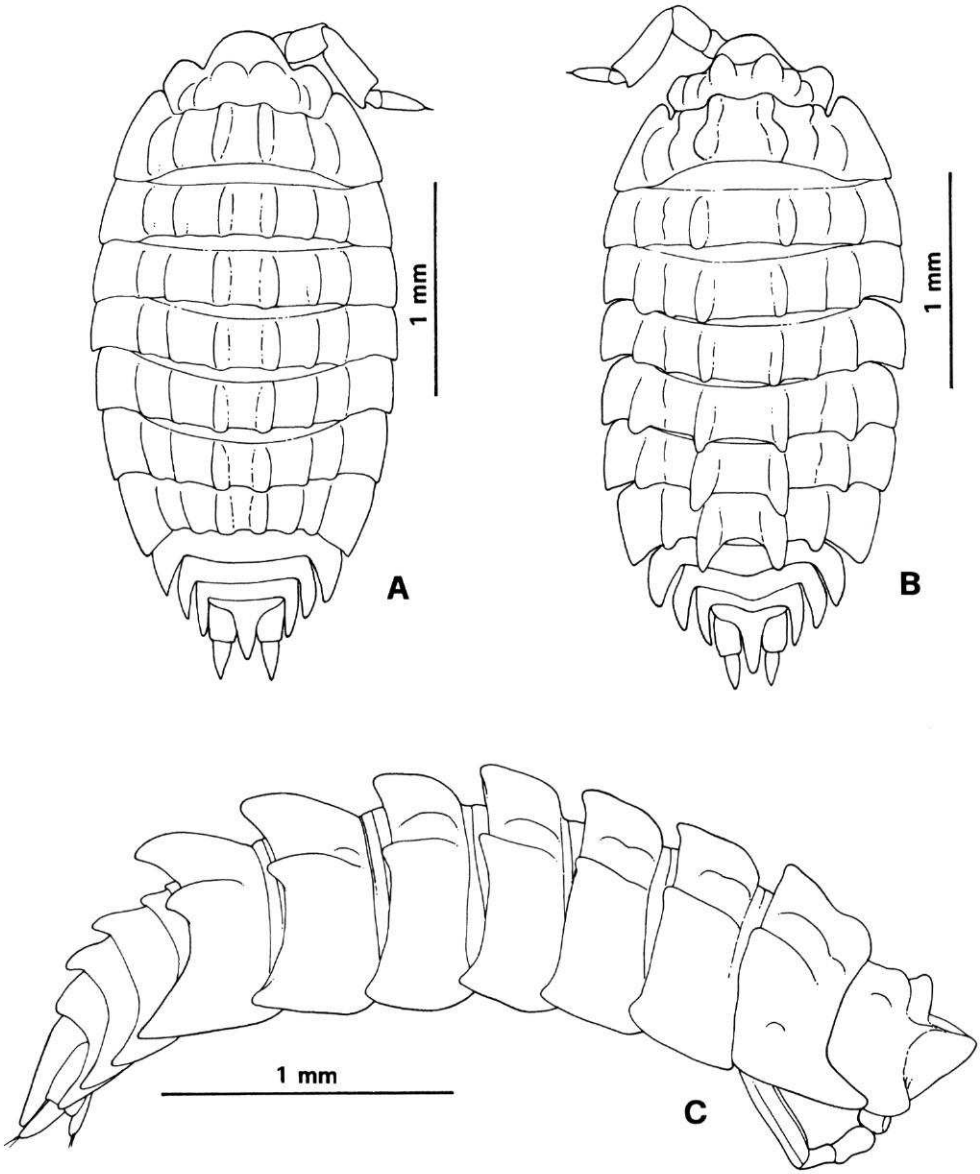

FIG. 13. — *Platyarthrus costulatus*: A, adult ♀, dorsal. *Platyarthrus corsicus* n.sp.: B, adult ♀, dorsal; C, adult ♀, lateral.

DESCRIPTION

Maximum dimensions: ♂, 2.5 × 1.1 mm; ♀, 3.3 × 1.3 mm.

Colourless body, eye absent. Dorsal ornamentation: cephalon with 2 + 2 large tubercles on vertex; pereonite 1 with 3 + 3 ridges and a small tubercle at the base of epimera; pereonites 2-6 with 3 + 3 ridges, very protruding except the second one on each side which progressively gets

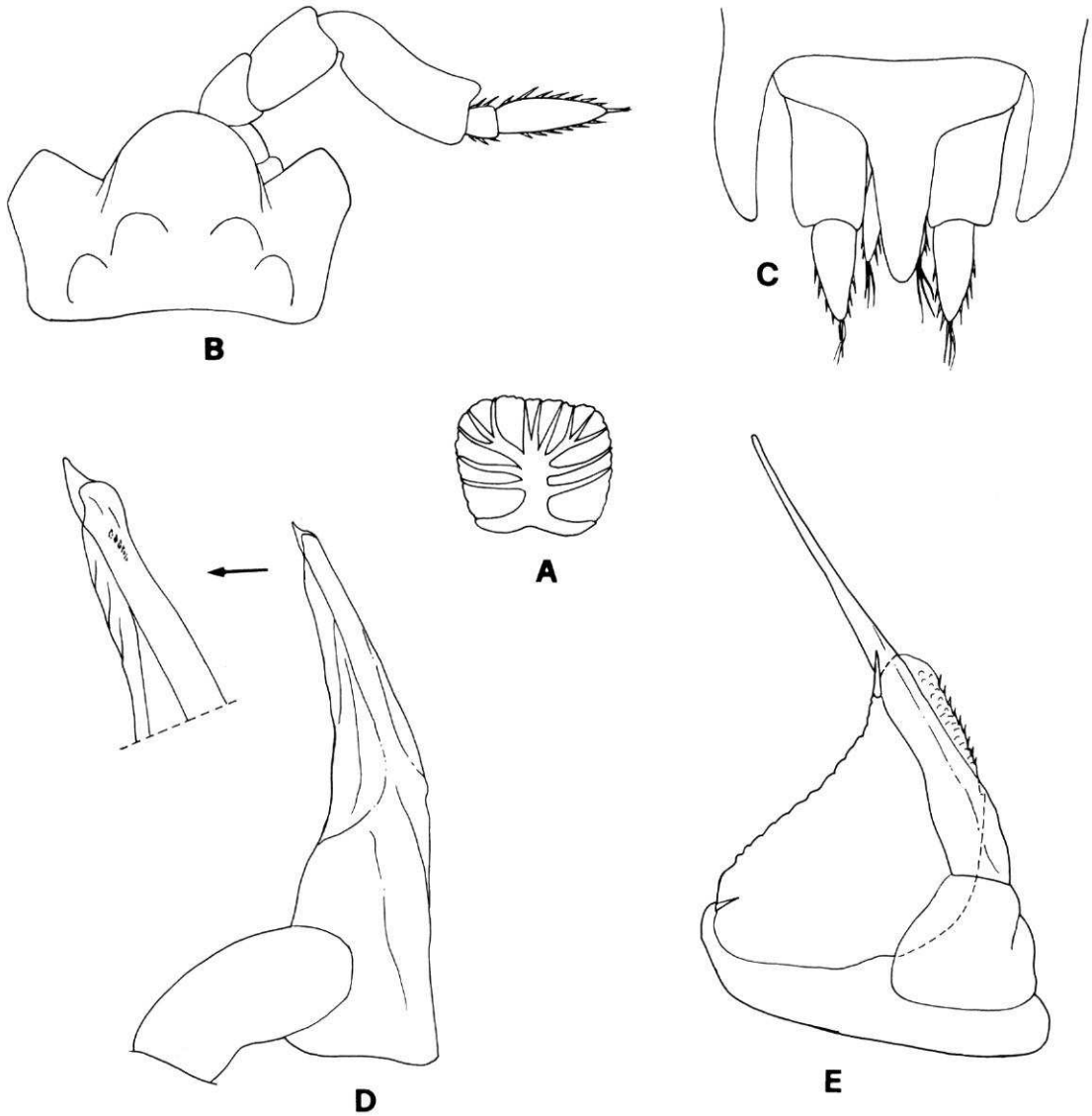

FIG. 14. — *Platyarthrus corsicus* n.sp.: A, dorsal scale-spine; B, cephalon and right antenna; C, telson and uropods; D, ♂ pleopod 1; E, ♂ pleopod 2.

smaller from front to back; pereonite 7 with 2 + 2 ridges, well developed and protruding backwards. Dorsum with many rounded and flattened scale-spines. Body very convex, ovoidal. Cephalon with median lobe rounded, protruding frontwards and slightly hollow dorsally; lateral lobes subquadrangular, tranversely directed frontwards. Pereonite 1 with posterior corners right-angled, becoming progressively more acute in the following pereonites. Pleonites 3-5 with epimera falciform, narrow and long, directed backwards. Telson with a short basal part and a narrow triangular distal part, clearly protruding backwards compared with the uropodal protopods. Antenna with thickset peduncular articles; second flagellar article about three times as long as first. Uropods with thickset exopod, slightly shorter than protopod.

Male

Pleopod 1 exopod small and ovoidal; endopod with apical part slightly swollen and pointed. Pleopod 2 endopod much longer than exopod.

REMARKS

Platyarthrus corsicus is morphologically close to *P. costulatus*, from which it differs in having more developed lateral and paramedian ridges on pereonites 1-6, and 2 + 2 instead of 3 + 3 ridges on pereonite 7. These differences are constant and no specimens with intermediate characters have been observed, even from localities where both forms have been collected. In our opinion these two forms belong to distinct, even if closely related, species.

In the past *P. corsicus* has certainly been confused with *P. costulatus* and some records from Corsica of the latter refer to the new species, which is present only in the southern part of the island.

Platyarthrus caudatus Aubert & Dollfus, 1890
(Fig. 15)

Platyarthrus caudatus; VANDEL 1954a: 73; 1962: 457, figs 228-229.

MATERIAL EXAMINED. — 1 ♀, Cardo (W of Bastia), leg. F. Bernini, 19.IV.1980; 1 juv., same locality, leg. S. Taiti and S. Campanelli, 12.X.1982; 5 ♀♀, Ermitage de la Trinité (W of Bonifacio), leg. S. Taiti, 12.IV.1981.

PREVIOUS RECORDS. — Brando, Sisco, Bonifacio (VANDEL 1962).

DISTRIBUTION. — Known from most of the lands of the western Mediterranean.

Platyarthrus aiasensis Legrand, 1953
(Fig. 15)

MATERIAL EXAMINED. — 8 ♀♀, Ermitage de la Trinité (W of Bonifacio), leg. S. Taiti, 12.IV.1981.

DISTRIBUTION. — This species has a West-Mediterranean-Atlantic distribution. It is known from Aix Island, the Canaries, Madeira Island, Algeria, Corsica, Sardinia, south-western Tuscany and the Tuscan Archipelago (Elba, Gorgona and Giannutri islands), Sicily and surrounding islands (Aeolian, Ustica, Aegadean, Pantelleria, Pelagean), and Malta. It has been introduced to South Africa (Cape Town), the USA (California and Texas) and St Barthelemy Island in the Caribbean (GARTHWAITE & TAITI 1989).

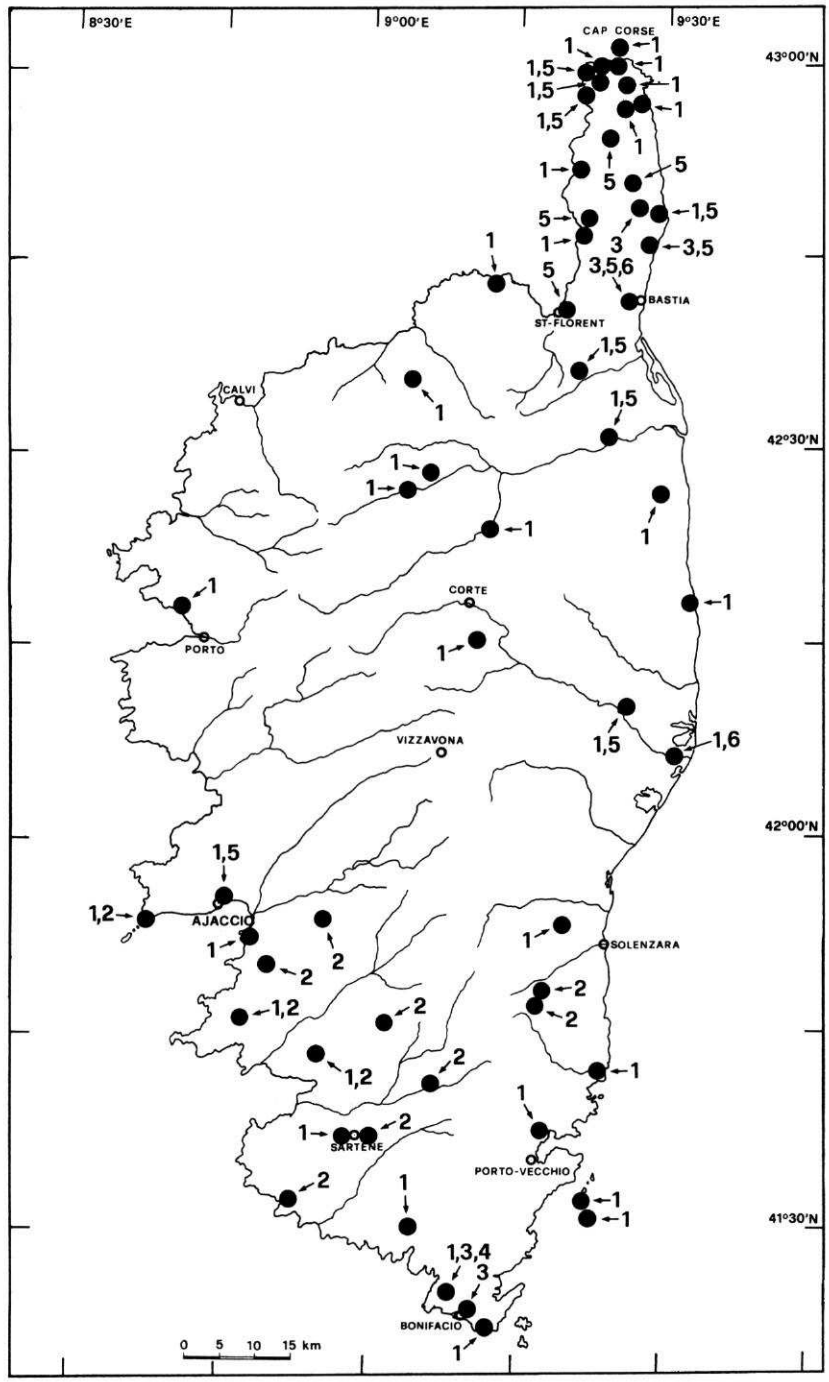

FIG. 15. — Distribution in Corsica of *Platyarthrus* species: 1, *P. costulatus*; 2, *P. corsicus*; 3, *P. caudatus*; 4, *P. aiasensis*; 5, *P. schoeblii schoeblii*; 6, *P. hoffmannseggii*.

Platyarthrus schoeblii schoeblii Budde-Lund, 1885
(= **P. schoeblii intermedius** Vandel, 1946)
(Fig. 15)

Platyarthrus schoeblii; SCHARFF 1894: 163; DOLLFUS 1899: 190; ARCANGELI 1925: 446; VANDEL 1954a: 73.

Platyarthrus schöbli schöbli; VANDEL 1962: 456, fig. 227B.

MATERIAL EXAMINED. — Many ♂♂ and ♀♀ collected from the following localities: moulin Mattei (NE of Centuri-Port); Rogliano; Morsiglia; Carbonacce (S of Luri); Ponticello (near Pietracorbara); Sta Catterina, N of marine de Sisco; near Crosciano along Sisco river; between Ogliastro and Lainosa (N of Nonza); near grotte de Brando; Cardo (W of Bastia); col de S. Stefano (S of Olmeta-di-Tuda); left bank of Golo river between Barchetta and Casamozza; between Volta and Scandulaie along tributary stream of Tavignano river (NW of Aléria).

PREVIOUS RECORDS. — St-Florent (SCHARFF 1894); Vico, Ajaccio (DOLLFUS 1899; ARCANGELI 1925); Corsica (VANDEL 1962).

DISTRIBUTION. — Due to the uncertainties in the taxonomy of the *schoeblii*-group (see also CARUSO & LOMBARDO 1982; CARUSO *et al.* 1987), it is difficult to define the distributions of the various subspecies. Besides Corsica, *P. schoeblii schoeblii* Budde-Lund (= *P. schoeblii intermedius* Vandel) is present in southern France, Sardinia, the Tuscan mainland and the Tuscan Archipelago, Sicily, Aeolian islands, Malta and Algeria.

REMARKS

According to VANDEL (1962) the subspecies *P. schoeblii schoeblii* is present and widely distributed in Corsica. The numerous specimens examined by us belong instead to the subspecies *P. schoeblii intermedius* Vandel, which, according to the French author, is distinguished from the nominal taxon by the presence of a residual ridge 4 on the pereonites (absent in the subspecies *schoeblii*, see VANDEL 1962, figs 227A and 227B). We have been able to re-examine the syntypes of *P. schoeblii* described by BUDDE-LUND (1885) from Bona, Algeria, deposited in the Natural History Museum, London and the Zoologisk Museum, Copenhagen. All the specimens have the dorsal ridges as in *P. schoeblii intermedius* Vandel, which therefore is a junior synonym of the nominal subspecies.

Most probably *P. schoeblii schoeblii sensu* Vandel is a distinct subspecies from *P. schoeblii schoeblii sensu* Budde-Lund but it cannot take this name. However, in Corsica only *P. schoeblii schoeblii sensu* Budde-Lund *nec* Vandel (= *P. schoeblii intermedius* Vandel) is present.

Platyarthrus hoffmannseggii Brandt, 1833
(Fig. 15)

MATERIAL EXAMINED. — 1 ♀, Cardo (W of Bastia), leg. F. Bernini, 19.IV.1980; 1 ♂, 1 ♀, Aléria, leg. F. Giusti, 30.XI.1983.

DISTRIBUTION. — This species is distributed in central-southern Europe.

Family CYLISTICIDAE
Genus **CYLISTICUS** Schnitzler, 1853

Cylisticus convexus (De Geer, 1778)
(Fig. 17)

Cylisticus convexus; VANDEL 1954a: 74; 1962: 559, figs 275, 276.

RECORDS. — Bastia (VANDEL 1962).

DISTRIBUTION. — *Cylisticus convexus* is widely distributed in Europe and Asia Minor, and it has been introduced with human activities to northern Africa, St Helena Island and America. Also the record of this species in Corsica, based on a single specimen, is certainly due to an occasional introduction.

Cylisticus vandeli Taiti & Ferrara, 1980
(Fig. 17)

Cylisticus gracilipennis; DOLLFUS 1887: 10 (*partim*: Corsica); 1899: 187 (*partim*: grotte d'Erbalunga); ARCANGELI 1925: 47 (*partim*: grotte d'Erbalunga).

Cylisticus esterelanus; ARCANGELI 1950: 176; CASSOLA 1982: 654.

Cylisticus nasutus; VANDEL 1953a: 164; 1954a: 74; 1962: 573, figs 286, 287; BERON 1972a: 12; TAITI & MANICASTRI 1980: 256, fig. 9 (*partim*: Corsica).

Cylisticus vandeli Taiti & Ferrara, 1980: 270, fig. VI.

MATERIAL EXAMINED. — Many ♂♂ and ♀♀ collected from the following localities: Tollare (Cap Corse); Ersa; near Rogliano; Camera (near Centuri); between Macinaggio and marine de Meria; between Morsiglia and Pastina; near Carbonacce (S of Luri); marine de Giottani (between Nonza and Centuri-Port); Ponticello (near Pietracorbara); St-Léonard (W of marine de Pietracorbara); Sta Catterina, N of marine de Sisco; near Crosciano along Sisco river; between Ogliastro and Lainosa (N of Nonza); Nonza; near grotte de Brando; Erbalunga; near Bastia; Cardo (W of Bastia); Olmeta-di-Tuda; Urtaca; between Barchetta and Casamozza along left bank of Golo river; near grotte de Pietralbello (Moltifao); grotte de Pietralbello; 3 km S of Ponte Leccia; Francardo; grotte de Sabara; Fium Alto valley, loc. Casette; near Lano (E of Omessa); Casanova (S of Corte); Fontaine de Padula (between Vivario and Vezzani); col de Vizzavona; near Ghisoni; Bocognano; Rocchio Pinzuto, lungo il ruscello Fiumicelle, affluente del Fiume Solenzara; between Cauro and col de St-Georges (W of Ajaccio); between Pietrosella and Fogolina (SE of Porticcio); Punta di u Carapono (Coti-Chiavari); between col de St-Eustache and col de Tana (W of Aullène); forêt de Valle Mala, near col de St-Eustache; valley below chapelle Pianelli, between Casalabriva and Olmeto; Ermitage de la Trinité (W of Bonifacio).

PREVIOUS RECORDS. — Grotte d'Erbalunga (DOLLFUS 1899; ARCANGELI 1925; VANDEL 1962); grotte des Maures (Poggio di Venaco) (VANDEL 1953a, 1962; BERON 1972a); forêt de Valdo-Niello (VANDEL 1962); grotte de Grottone (Lama) (BERON 1972a); Ghisoni (TAITI & FERRARA 1980).

DISTRIBUTION. — This species is endemic to Corsica, where it is widely distributed.

Cylisticus uncinatus n.sp.
(Figs 16, 17)

MATERIAL EXAMINED. — 1 ♂ holotype, 3 ♂♂, 4 ♀♀ paratypes (MZUF), 1 ♂, 2 ♀♀ paratypes (MNHN-Is4104), 1 ♂ juv., 1.6 km from Stazzona, near road to the Eaux d'Orezza, leg. S. Taiti and A. Poggesi, 20.VI.1984; 2 ♂♂ paratypes (MZUF), col de Teghime, humus, leg. F. Bernini, 20.IV.1980; 1 ♂ paratype (SMNS), Bevinco river valley, below col de S. Stefano, leg. W. Schawaller, 27.VII.1980; 1 ♂, 2 ♀♀ paratypes, near Sorio, near Viacale bridge on Chiaraggio stream, leg. S. Taiti and S. Vanni, 9.III.1994 (MZUF); 2 ♂♂, 5 ♀♀ paratypes

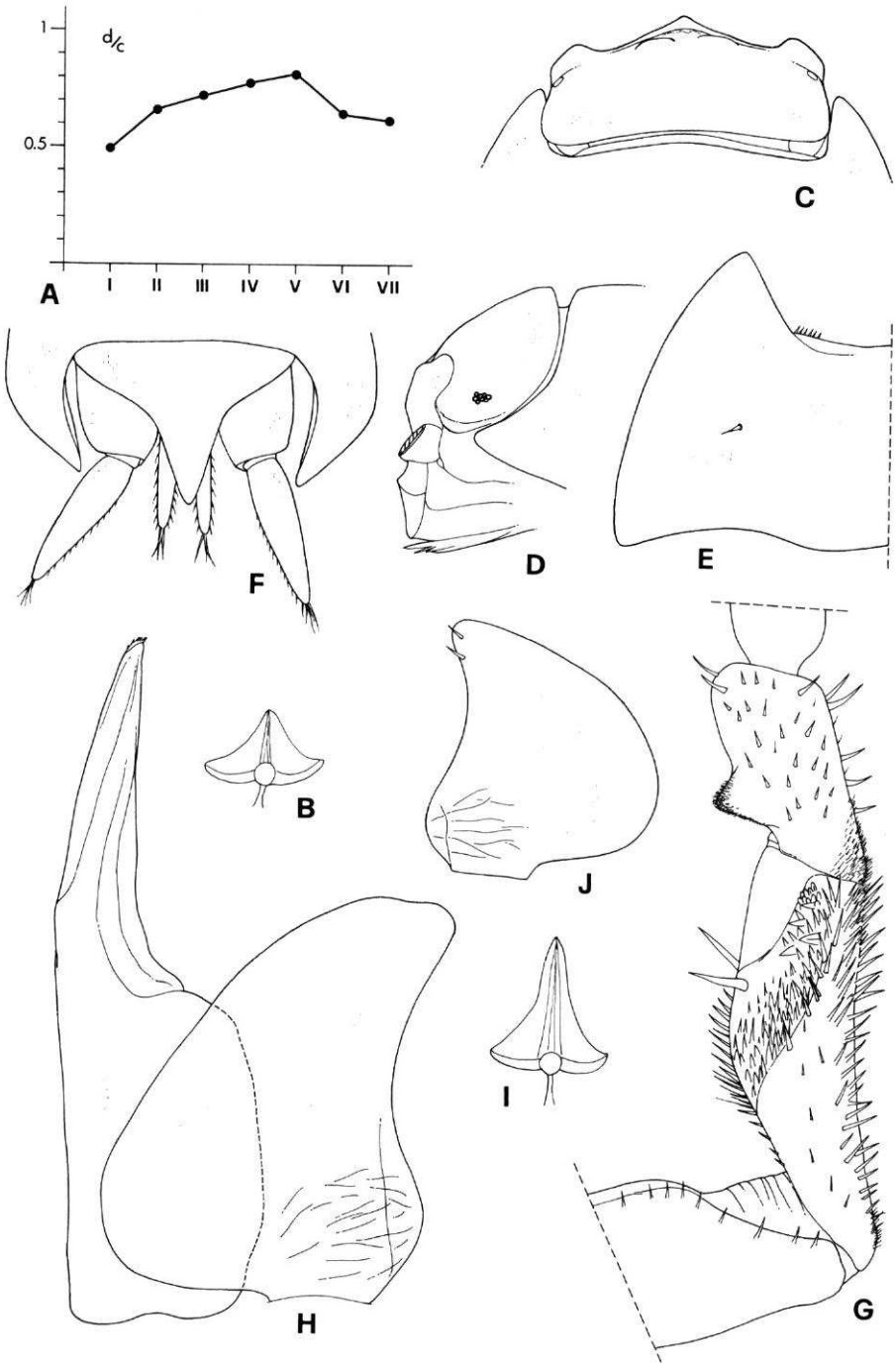

FIG. 16. — *Cylisticus uncinatus* n.sp., specimens from Stazzona environs: A, d/c co-ordinates of noduli laterales; B, dorsal scale-spine; C, cephalon, dorsal; D, cephalon, lateral; E, left epimeron of pereonite 1; F, telson and uropods; G, ♂ pereopod 7; H, ♂ pleopod 1. Specimens from col de Bavella: I, dorsal scale-spine; J, ♂ pleopod 1 exopod.

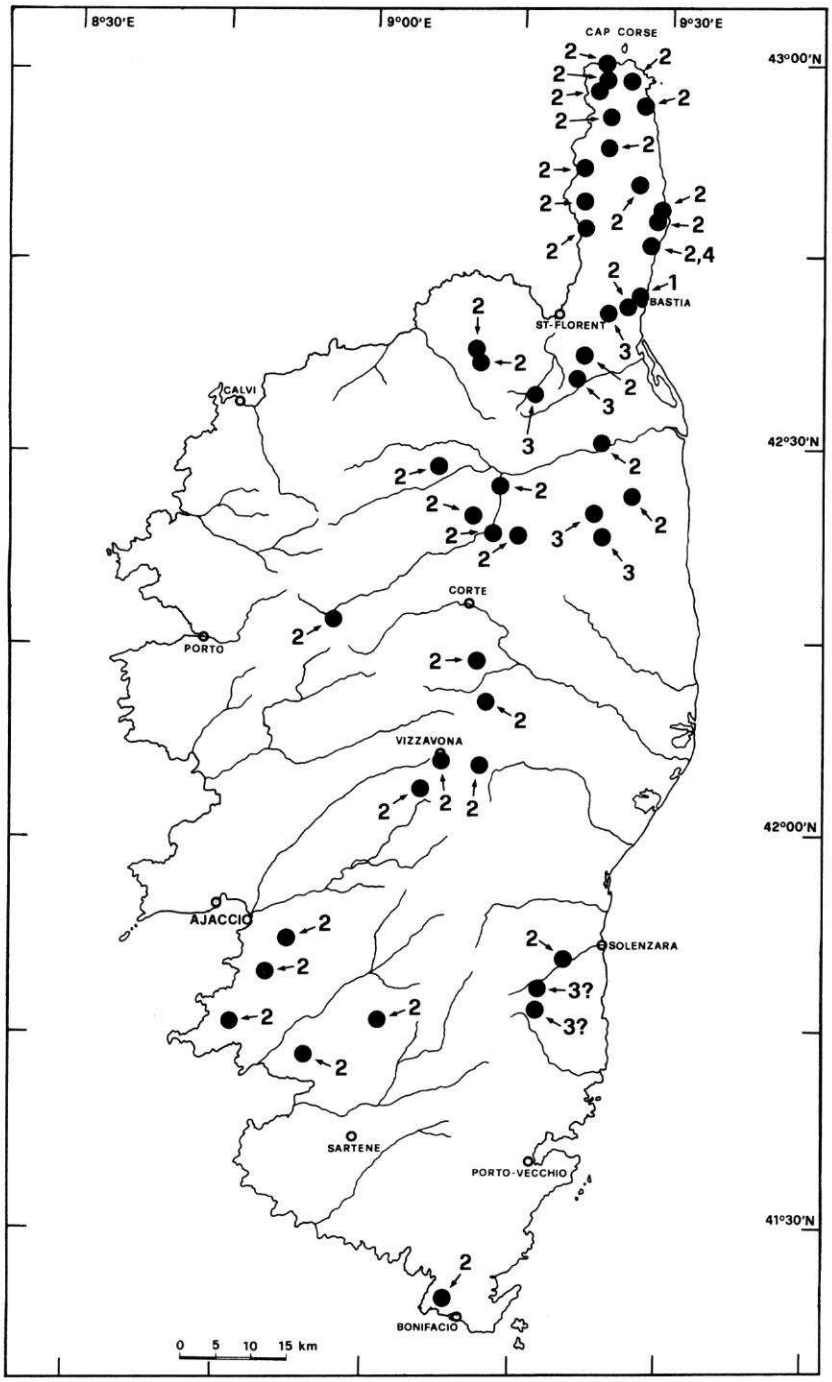

FIG. 17. — Distribution in Corsica of Cylisticidae species: 1, *Cylisticus convexus*; 2, *C. vandeli*; 3, *C. uncinatus*; 4, *Troglocylisticus cyrnensis*.

(MZUF), Monte S. Petrone slopes, 1000-1500 m, leg. A. Torchia and S. Zoia, 25.V.1982; 3 ♂♂, 6 ♀♀ paratypes (MZUF), Punta di Chiarsgioli, Monte S. Petrone, NW slope, 1100 m, beech wood, leg. S. Taiti and A. Poggesi, 21.VI.1984; ? 1 ♂, 8 ♀♀ (MZUF), col de Bavella, between Alza and Argiavara, along first left stream of S. Pietro river, ilex grove, leg. S. Taiti, 11.VII.1978; ? 3 ♂♂, 6 ♀♀ (MZUF), col de Bavella, coniferous forest, leg. S. Taiti, 14.IV.1981.

ETYMOLOGY. — L. *uncinatus* = having a hook. The name refers to the characteristic triangular process on the male pereopod 7 merus.

DESCRIPTION

Maximum length: ♂, 11.5 mm; ♀, 13 mm.

Body very pale brown. Dorsum smooth, with tiny triangular scale-spines. Noduli laterales almost at the same distance from lateral margin; d/c co-ordinates with a maximum on pereonite 5. Eye small, with 5 to 10 ommatidia, according to the animal's size. Cephalon with median lobe triangular, very obtuse, slightly protruding above the vertex and frontwards; lateral lobes small, quadrangular. Pereonite 1 with posterior margin slightly concave at the sides. Telson with distal part much narrower than basal, triangular, subacute apex distinctly protruding backwards in comparison with uropodal protopods. Antenna with second flagellar article 1.5 times as long as the first.

Male

Pereopods 1-4 with a brush of spines on carpus and, more sparsely, on merus. Pereopod 7 ischium with rostral surface transversely depressed and covered with short setae, sternal margin slightly concave with long setae; merus with a protruding setose triangular process on tergal margin. Pleopod 1 exopod triangular with a short rounded posterior point bent outwards, outer margin sinuous; endopod with straight apical part and no particular modifications.

REMARKS

Cylisticus uncinatus, as well as *C. vandeli*, belongs to the *nasutus*-group of *Cylisticus* (see FERRARA & TAITI 1978, 1985; TAITI & MANICASTRI 1980; TAITI & FERRARA 1980), which includes fifteen more species and subspecies distributed in southern France, central Italy and Sardinia. The new species is readily distinguishable from all others by the distinct process on the male pereopod 7 merus. In the shape of the cephalon, telson and male pleopod 1 exopod, *C. uncinatus* is close to the other Corsican species, *C. vandeli*, from which it differs, besides the above-mentioned character, in its larger dimensions, presence of a feeble pigmentation, more developed eye, and the male pleopod 1 endopod with apical part straight instead of bent outwards.

The specimens from col de Bavella show some differences from the type specimens in the scale-spines longer and more pointed (Fig. 16I), which give a setose look to the specimens, and in the shape of the male pleopod 1 exopod (Fig. 16J). All the other characters, particularly the shape of the male pereopod 7, are identical to those of the type specimens. They might belong to a distinct species but more material is needed for a certain identification.

Genus **TROGLOCYLISTICUS** Ferrara & Taiti, 1983

Troglocylisticus cyrnensis Ferrara & Taiti, 1983
(Fig. 17)

Troglocylisticus cyrnensis Ferrara & Taiti, 1983: 485, figs I-II.

RECORDS. — Grotte de Brando (FERRARA & TAITI 1983).

DISTRIBUTION. — Known only from the type locality.

Family PORCELLIONIDAE
Genus **PROTRACHEONISCUS** Verhoeff, 1917

Protracheoniscus babori Frankenberger, 1938

Protracheoniscus occidentalis; VANDEL 1954a: 74; 1962: 578, figs 288-290.
Protracheoniscus babori; TAITI & FERRARA 1980: 278.

MATERIAL EXAMINED. — Many ♂♂ and ♀♀ collected from the following localities: between Barcaggio and Punta di Agnello (Cap Corse); marine de Pietracorbara; Lovo Santo, swamp at mouth of Cavo river.

PREVIOUS RECORDS. — Marine de Pietracorbara (VANDEL 1962); mouth of Cavo river (TAITI & FERRARA 1980).

DISTRIBUTION. — This species has a wide distribution: besides Corsica, it is recorded from southern France, Catalonia, Italy (Tuscany and Sicily), Croatia, Albania (cited as *Protracheoniscus albanicus* Arcangeli, 1952; see SCHMALFUSS 1983), Greece and probably southern Russia.

REMARKS

Examination of the abundant material from Corsica shows that these specimens belong to *P. babori* as redescribed by TAITI & FERRARA (1980). In fact, the male pereopod 7 ischium has a deep concavity covered with setae, the merus bears a process at the base, and the carpus is distinctly arched on the tergal margin. However, these characters are clearly visible only in fully adult specimens.

Thanks to the courtesy of Dr. H. DALENS (Toulouse), we could examine some specimems of *Protracheoniscus occidentalis* Vandel, 1939 collected near Toulouse, which proved this species to be synonymous with *P. babori*.

Genus **PORCELLIONIDES** Miers, 1877

Porcellionides pruinosus (Brandt, 1833)

Metoponorthus (Metoponorthus) pruinosus; VANDEL, 1954a: 74.

MATERIAL EXAMINED. — Many ♂♂ and ♀♀ collected from the following localities: Rogliano; near moulin Mattei, N of Centuri-Port; Centuri-Port; between Bastia and St-Florent; défilé de Lancone; entrance of grotte de Grottone, near Lama; Asco river valley; near Ermitage de la Trinité (W of Bonifacio); île de la Giraglia.

PREVIOUS RECORDS. — Corsica (VANDEL 1954a).

DISTRIBUTION. — Cosmopolitan species.

Porcellionides sexfasciatus sexfasciatus (Budde-Lund, 1885)

Metoponorthus sexfasciatus; SCHARFF 1894: 163; DOLLFUS 1899: 189.
Metoponorthus (Polytretus) sexfasciatus; VANDEL 1954a: 74.
Metoponorthus (Polytretus) sexfasciatus sexfasciatus; VANDEL 1962: 608, figs 299-302.

MATERIAL EXAMINED. — Many ♂♂ and ♀♀ collected from the following localities: near Bastia; Casta (SW of St-Florent); entrance of grotte de Grottone, near Lama; Calzarello, SE of Ghisonaccia; Punta de la Parata (W of Ajaccio).

PREVIOUS RECORDS. — Corte (SCHARFF 1894); Vizzavona, Porto-Vecchio (DOLLFUS 1899); littoral regions of Corsica (VANDEL 1962).

DISTRIBUTION. — It is known from the Atlantic islands, Morocco, Algeria, Tunisia, Spain, France, Italy and Malta.

Genus **ACAEROPLASTES** Verhoeff, 1918

Acaeroplastes melanurus sardous Verhoeff, 1918
(Fig. 18)

Metoponorthus melanurus; BUDDE-LUND 1885: 181 (*partim*: Corsica); SCHARFF 1894: 163; DOLLFUS 1899: 189.
Metoponorthus (Acaeroplastes) melanurus; ARCANGELI 1950: 115.
Metoponorthus (Acaeroplastes) melanurus sardous; VANDEL 1954a: 74.
Acaeroplastes melanurus sardous; VANDEL 1962: 633, fig. 313; TAITI & FERRARA 1980: 280.
Aceroplastes [sic!] *melanurus sardous*; LANZA & POGGESI 1986: 121, 176, 180, 188.

MATERIAL EXAMINED. — Many ♂♂ and ♀♀ collected from the following localities: Tollare (Cap Corse); Centuri-Port; marine de Giottani (between Nonza and Centuri-Port): marine de Pietracorbara; anse de Faggiola, désert des Agriates; Casta (SW of St-Florent); Pas du Diable (W of Casta); col de S. Stefano (S of Olmeta-di-Tuda); col de S. Colombano (E of Belgodère); between Barchetta and Casamozza along left bank of Golo river; forêt de Tartagine; Ghisonaccia; Porticcio; below Punta di Boccarona, along Solenzara river; between col de Bavella and Punta Velaco; Sollacaro (N of Olmeto); Fautea (between Solenzara and Porto-Vecchio); Lovo Santo, swamp at mouth of Cavo river; mouth of Rizzanèse river (SW of Propriano); Golfo di Sogno (NE of Porto-Vecchio); Bocca Albitrina (SW of Sartène); Monte Rosso (SE of Sartène); dolmen de Fontanaccia (S of Sartène); Tizzano and environs, baie d'Avena (SW of Sartène); Viagenti (near Pianotolli, NW of Bonifacio); Capo Pertusato (SE of Bonifacio); île Spano (NE of Calvi); îlot Fautea; îlot sud de la Tonnara (golfe de Ventilegne); rocher sud de Ratino (W of île Cavallo); îlot Sperduto Grande (E of île Cavallo).

PREVIOUS RECORDS. — Corsica (BUDDE-LUND 1885); Ajaccio (SCHARFF 1894; DOLLFUS 1899); étang de Biguglia (DOLLFUS 1899); all Corsica, Ponte Leccia, Sta-Maria-Figaniella and Sartène (VANDEL 1962); mouth of Cavo river (TAITI & FERRARA 1980); îlot Fautea, îlot Sperduto Grande, rocher sud de Ratino, île Spano (LANZA & POGGESI 1986).

DISTRIBUTION. — Known from Corsica, Sardinia and Tuscany (Montecristo and Elba Islands, La Scarpa islet near Pianosa Island, Monte Massoncello, Uccellina and Monte Argentario).

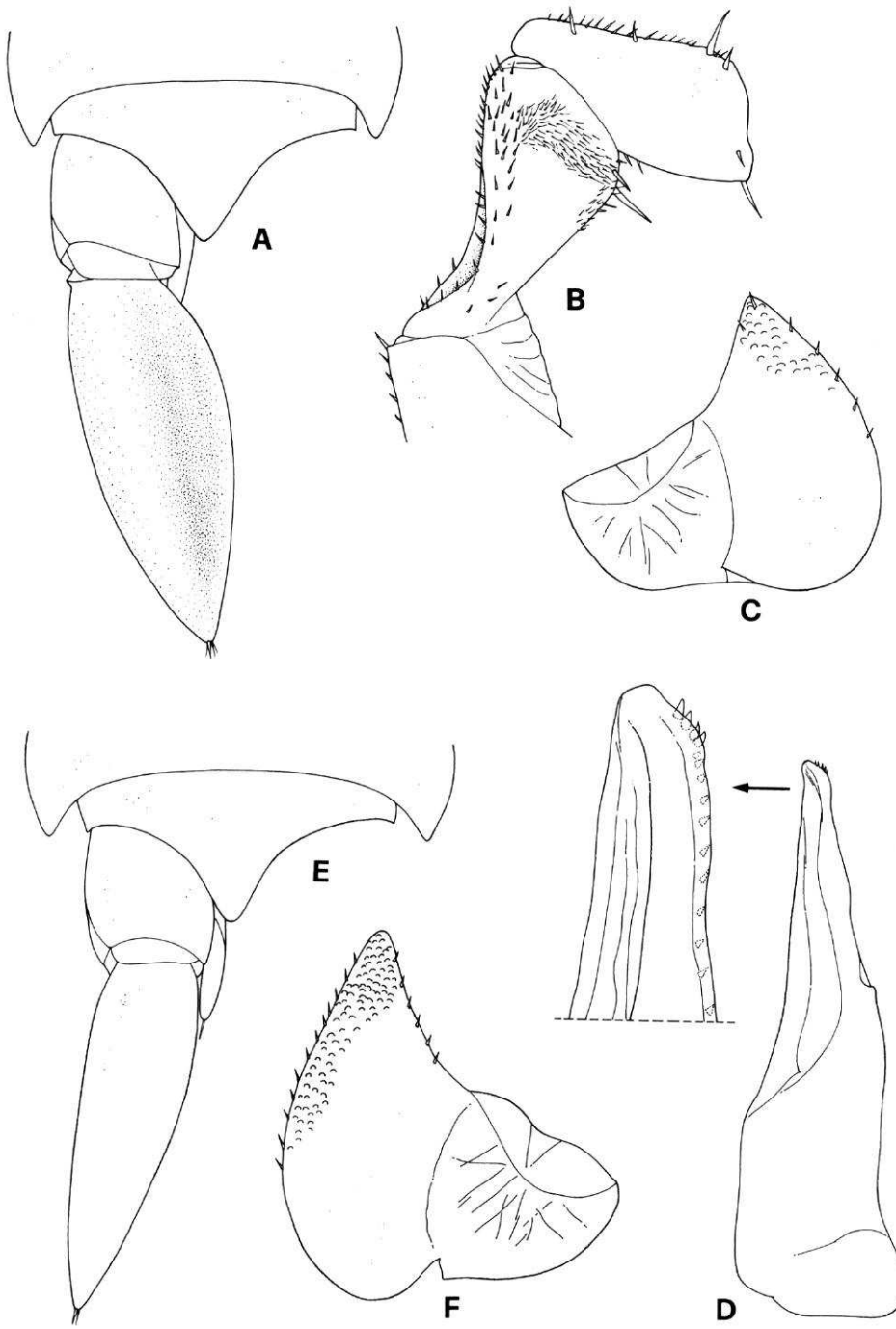

FIG. 18. — *Acaeroplastes melanurus sardous*, ♂ from Capo Pertusato: A, telson and left uropod; B, pereopod 7; C, pleopod 1 exopod; D, pleopod 1 endopod. ♂ from Tollare: E, telson and left uropod; F, pleopod 1 exopod.

REMARKS

The abundant material examined revealed some differences in the male uropodal exopod in the various populations. Southern populations (*e.g.* Capo Pertusato) (Fig. 18A) have a much more flattened and widened exopod than northern ones (*e.g.* Cap Corse peninsula) (Fig. 18E), even in male specimens of the same length (9 mm). In some populations (*e.g.* Cavo river mouth) this appendage has an intermediate development, while the shape of the male pereopod 7 and pleopod 1 is identical in all populations. In our opinion these differences must be considered within the variability of this subspecies.

Genus **LEPTOTRICHUS** Budde-Lund, 1885

Leptotrichus panzerii (Audouin, 1826)

Leptotrichus Panzerii; BUDDE-LUND 1885: 193, 194; ARCANGELI 1914: 477; 1950: 121.
Leptotrichus Panzeri; DOLLFUS 1887: 10; ARCANGELI 1925: 17; VANDEL 1954a: 74.
Leptotrichus panzeri; VANDEL 1962: 645, figs 317-319.

MATERIAL EXAMINED. — Many ♂♂ and ♀♀ collected from the following localities: Centuri-Port; Bonifacio; Capo Pertusato (SE of Bonifacio).

PREVIOUS RECORDS. — Corsica (BUDDE-LUND 1885; DOLLFUS 1887; VANDEL 1954a); Bonifacio and Propriano (VANDEL 1962).

DISTRIBUTION. — This species occurs in all the lands encompassing the Mediterranean Sea, Madeira Island, the Canaries, Cape Verde and the Bermudas.

Genus **AGABIFORMIUS** Verhoeff, 1908

Agabiformius lentus (Budde-Lund, 1885)

Agabiformius lentus; VANDEL 1954a: 74; 1962: 640, figs 315-316.

MATERIAL EXAMINED. — 1 ♀, Cardo (W of Bastia), leg. S. Taiti and A. Poggesi, 27.VI.1984.

PREVIOUS RECORDS. — Corsica (VANDEL 1954a); Sisco (VANDEL 1962).

DISTRIBUTION. — This species is very common in all the lands of the Mediterranean basin. It has been introduced by man to Madeira Island, the Canaries, Senegal, Oman, Seychelles, China, Mexico, Haiti, Venezuela, Bermudas and Hawaiian islands. It has also been recorded from greenhouses in England.

Genus **LUCASIUS** Kinahan, 1859

Lucasius pallidus (Budde-Lund, 1885)

Lucasius pallidus; VANDEL 1954a: 74.
Lucasius pallidus pallidus; VANDEL 1962: 651, figs 320-321.

MATERIAL EXAMINED. — Many ♂♂ and ♀♀ collected from the following localities: valley below chapelle Pianelli, between Casalabriva and Olmeto; mouth of Rizzanèse river, S of Propriano; Monte Rosso, SE of Sartène.

PREVIOUS RECORDS. — Corsica (VANDEL 1954a).

DISTRIBUTION. — Portugal, Spain, southern France, Morocco, Corsica, Sardinia and Tuscany.

Genus **PORCELLIO** Latreille, 1804

Porcellio spatulatus Costa, 1882
(Fig. 19)

Porcellio latissimus; BUDDE-LUND 1885: 95, 302; DOLLFUS 1887: 10; 1899: 188; ?SCHARFF 1894: 163.

Porcellio spatulatus; ARCANGELI 1925: 15, pl. 4, figs 1-2; VANDEL 1954a: 73; 1962: 660; LANZA 1979: 49; CASSOLA 1982: 654; LANZA & POGGESI 1986: 66, 71, 121, 177, 178, 179, 180, 182, 184, 185.

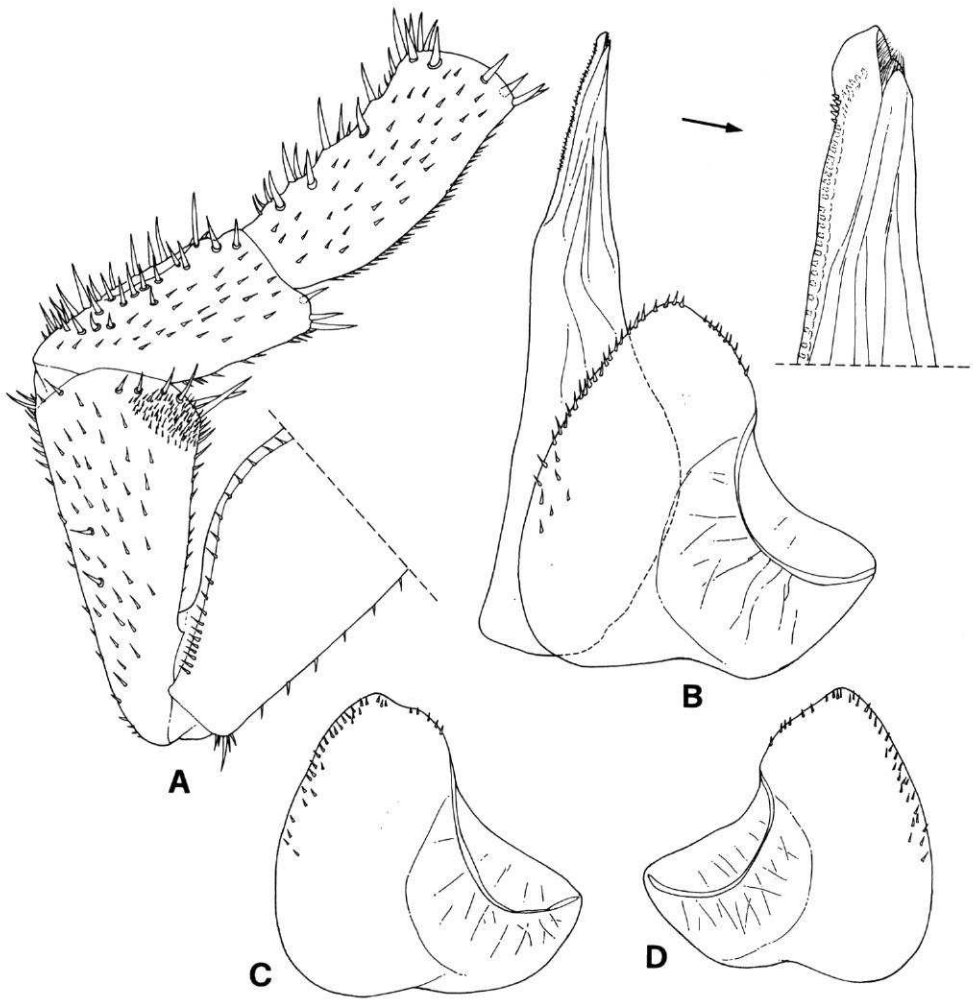

FIG. 19. — *Porcellio spatulatus*, ♂: A, pereopod 7; B, pleopod 1; C, D, pleopod 1 exopod in other specimens.

Porcellio (Polyplatus) spatulatus; ARCANGELI 1950: 90.

MATERIAL EXAMINED. — Many ♂♂ and ♀♀ collected from the following localities: near Tizzano (SW of Sartène); Capo Pertusato (SE of Bonifacio); île de Cornuta (golfe de San Cipriano); îlot La Folaca (near Palombaggia, SE of Porto-Vecchio); rocher de Vacca (Cerbicale); île Pietricaggiosa (Cerbicale); îlot Toro Grande; îlot Toro Piccolo; îlot Porraggia Piccola and îlot Porraggia Grande (N of île Cavallo); grand îlot des Bruzzi (W of golfe de Figari); îlot Fazzuolo Piccolo (NW of Bonifacio); rocher sud de Ratino (W of île Cavallo); île Saint-Antoine (Capo Pertusato, SE of Bonifacio).

PREVIOUS RECORDS. — Corsica and île Lavezzi (BUDDE-LUND 1885; ARCANGELI 1925, 1950); ? Corte (SCHARFF 1894); île Saint-Antoine (LANZA 1979; LANZA & POGGESI 1986); île de Cornuta, rocher de Vacca, île Pietricaggiosa, îlot Toro Grande, îlot Toro Piccolo, îlot La Folaca, îlot Porraggia Piccola, îlot Porraggia Grande, rocher sud de Ratino, île Lavezzi, îlot Fazzuolo Piccolo, grand îlot des Bruzzi (LANZA & POGGESI 1986).

DISTRIBUTION. — Southern Corsica, Sardinia and northern Tunisia (*ca* 28 km N of Sousse, unpublished datum).

REMARKS

In Corsica this species is strictly littoral. Thus, the record from Corte (SHARFF 1894) most probably is due to a misidentification or a mislabelling of the locality.

The male characters of this species are illustrated in Fig. 19.

Porcellio scaber Latreille, 1804

MATERIAL EXAMINED. — 2 ♂♂, 2 ♀♀, near Tizzano, SW of Sartène, leg. S. Taiti, 15.V.1982.

DISTRIBUTION. — Cosmopolitan species.

Porcellio dilatatus dilatatus Brandt, 1833

Porcellio dilatatus; SCHARFF 1894: 163; REMY 1950: 6, 7, 9; VANDEL 1953a: 164; 1954a: 74; BERON 1972a: 12.

MATERIAL EXAMINED. — Many ♂♂ and ♀♀ collected from the following localities: near Meria; marine de Giottani (between Nonza and Centuri-Port); near Ponticello (near Pietracorbara); St-Léonard (W of marine de Pietracorbara); Sta Catterina, N of marine de Sisco; grotte de Sisco; near Crosciano along Sisco river; grotte de Brando and environs; Sto Pietro-di-Tenda; grotte de Sabara (Castiglione).

PREVIOUS RECORDS. — Ajaccio (SCHARFF 1894); grottes de Sisco and Brando (REMY 1950; VANDEL 1953a; BERON 1972a); grottes de Sabara, Cabanuli (Omessa), Sisco II, Ostriago (Pietracorbara) and Manuel-Ange (Lozzi) (BERON 1972a).

DISTRIBUTION. — Known from all Europe but rare at the east of the Italian peninsula. It has been introduced to North and South America, Sri Lanka and Hawaii.

Porcellio laevis Latreille, 1804

Porcellio laevis; SCHARFF 1894: 163; VERHOEFF 1926: 263; VANDEL 1953a: 164; 1954a: 74; BERON 1972a: 13; LANZA & POGGESI 1986: 121, 182.

? *Porcellio ragusae*; VERHOEFF 1926: 263; VANDEL 1954a: 73; 1962: 660.

MATERIAL EXAMINED. — Many ♂♂ and ♀♀ collected from the following localities: Tollare (Cap Corse); marine de Pietracorbara; marine de Sisco; Casta (SW of St Florent); défilé de Lancone; Folelli, along Fium Alto; Ghisonaccia; Porticcio; valley below chapelle Pianelli, between Casalabriva and Olmeto; mouth of Rizzanèse river, SW of Propriano; Bocca Albitrina, W of Sartène; Monte Rosso, SE of Sartène; Tizzano, SW of Sartène; dolmen de Fontanaccia and menhir de Renaggiu, S of Sartène; Bonifacio; île de la Giraglia; île Lavezzi.

PREVIOUS RECORDS. — Bastia and St-Florent (SCHARFF 1894); road from Biguglia to St-Florent, Sagone (VERHOEFF 1926); grotte de St-Francois (Bonifacio) (VANDEL 1953a; BERON 1972a); île Lavezzi (LANZA & POGGESI 1986).

DISTRIBUTION. — Cosmopolitan species.

REMARKS

On the basis of a re-examination of the types of *Porcellio ragusae* Dollfus, 1896, CARUSO & LOMBARDO (1982: 26) demonstrated this species to be a junior synonym of *P. laevis*. Most probably also the record of *P. ragusae* from Corsica refers to *P. laevis*.

Porcellio orarum vizzavonensis Verhoeff, 1928
(Fig. 20)

Porcellio variabilis (= *P. transmutatus*); DOLLFUS 1899: 188.

Porcellio lugubris vizzavonensis; VERHOEFF 1926: 263 (*nomen nudum*); 1928: 123.

Porcellio (Porcellio) Verhoeffi; ARCANGELI 1950: 87.

Porcellio orarum vizzavonensis; VANDEL 1951: 159, fig. 32; 1954a: 74; 1962: 731, figs 350, 352D-E; TAITI & FERRARA 1980: 282; LANZA & POGGESI 1986: 121, 170, 175, 176, 177, 178, 179, 181, 183, 185, 186, 187, 188.

MATERIAL EXAMINED. — Many ♂♂ and ♀♀ collected from the following localities: Capo Grosso, Tollare, Barcaggio and pond between Barcaggio and Punta di Agnello (Cap Corse); marine de Giottani (between Nonza and Centuri-Port); phare de Fornali, W of St-Florent; near Capo a u Cavallo (SW of Calvi); near grotte de Pietralbello, S of Moltifao; Folelli, along Fium Alto; Haut-Asco; forêt de Carozzica (near Haut-Asco); near Asco; Francardo; near Caporalino; N slope of Monte Cinto; W slope of Monte Cinto near refuge Altare; Cala Maiora, anse de Gattoia (W of Girolata); Prunete (E of Cervione); plage de Caspio (NW of Porto); col de Vergio (NE of Evisa); Porto; lac de Melo and lac de Capitello (Restonica river valley); Restonica river valley; Vecchio river valley (S of Venaco); near Ghisoni; col de Vizzavona; Capannelle (SE of Vizzavona); lac de Vitelaca (upper valley of Prunelli river); Punta de la Parata, W of Ajaccio; below Punta di Boccarona, along Solenzara river; 3 km N of col de la Vaccia (N of Aullène); col de Bavella and environs; foot of Punta Velaco (S of Bavella); Fautea (between Solenzara and Porto-Vecchio); Lovo Santo, swamp at mouth of Cavo river; valley below chapelle Pianelli between Casalabriva and Olmeto; S of Orone (W of l'Ospedale); Barrage de l'Ospedale; Taglio Rosso, W of Ste-Lucie-de-Porto-Vecchio; baie d'Avena, SW of Sartène; golfe de Sant'Amanza; near Ermitage de la Trinité (NW of Bonifacio); old fortress near Capo Pertusato (SE of Bonifacio); Capo Pertusato; île de la Giraglia; îlot Terre and îlot Finocchiarola (N of Macinaggio); îlot Nord de Morsetta (N of Galéria); îlot Porri and rochers d'Elpa Nera (W of Stolli, golfe de Girolata); îlot Palazzinu and îlot Palazzu (N of Punta Palazzo); îlot Garganellu (near île Gargalu, S of Punta Palazzo); Zeccu d'a Furmicula (golfe d'Elbo); îlot Guardiola (SW of Porto); île de Cala d'Alga (Sanguinaires); île Mezzu Mare (Sanguinaires); île Piana de Portigliolo (golfe d'Ajaccio); îlot Fautea; îlot de la Roscana (golfe de Pinarello); île de Pinarello; îlot La Folaca (near Palombaggia, SE of Porto-Vecchio); rocher de Vacca and île Pietricaggiosa (Cerbicale); îlot Toro Grande; îlot Toro Piccolo; grand îlot des Bruzzi (NW of golfe de Figari); île Cavallo; îlot Luigi Giafferri (N of île Lavezzi); îlot Silene (NW of île Lavezzi); île Lavezzi.

PREVIOUS RECORDS. — Vizzavona (VERHOEFF 1926, 1928); Sargone (VERHOEFF 1928); Corsica (VANDEL 1962); mouth of Cavo river, Fautea, Velaco, Diamante (TAITI & FERRARA 1980); île de la Giraglia, îlot Terre, îlot Finocchiarola, îlot Fautea, îlot de la Roscana, île de Pinarello, rocher de Vacca, île Pietricaggiosa, îlot Toro Grande, îlot

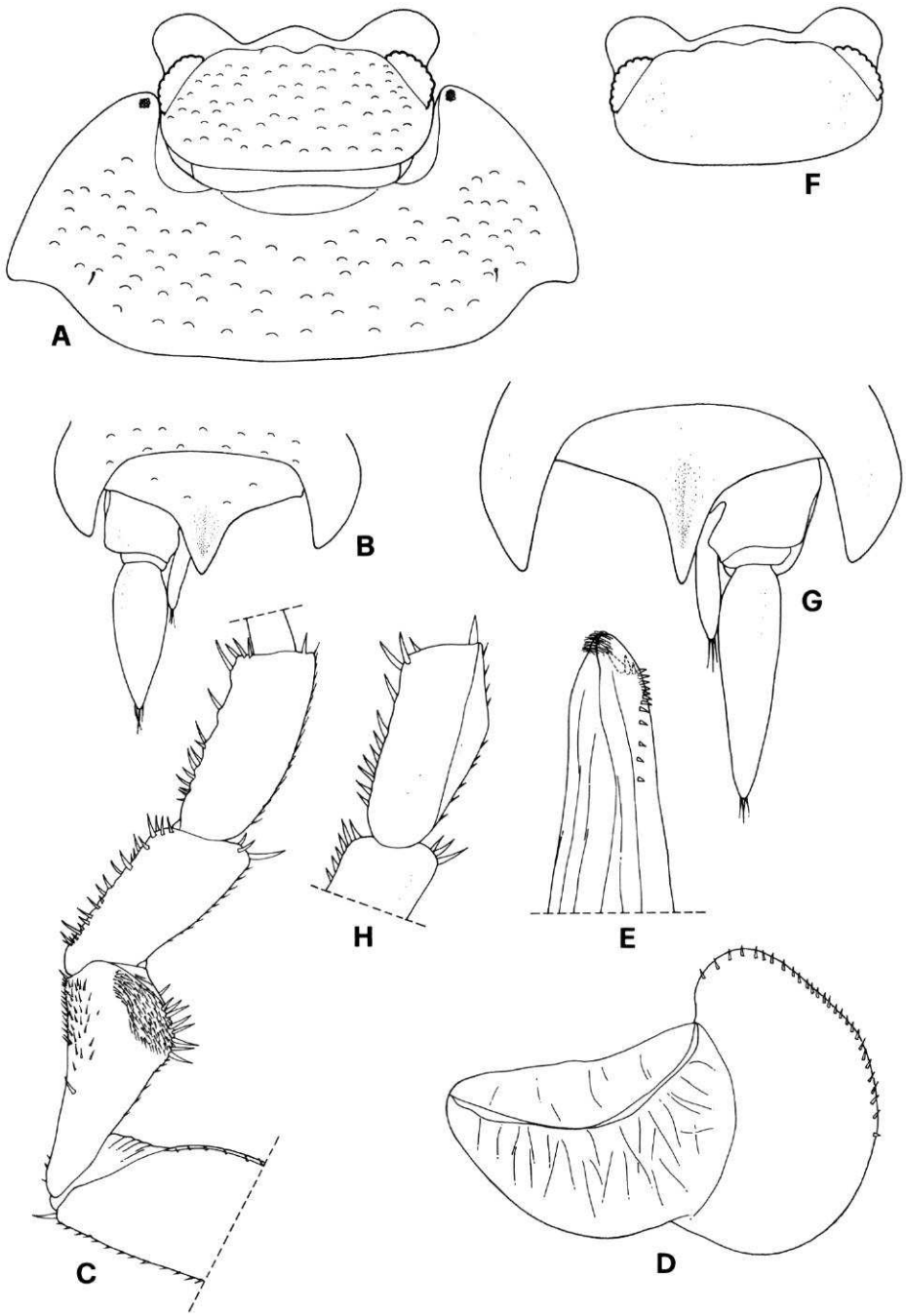

FIG. 20. — *Porcellio orarum vizzavonensis*, specimens from Punta de la Parata: A, cephalon and pereonite 1; B, telson and left uropod; C, ♂ pereopod 7; D, ♂ pleopod 1 exopod; E, distal part of ♂ pleopod 1 endopod. Specimens from Asco river valley: F, cephalon; G, telson and right uropod. Specimen from Orone environs: H, ♂ pereopod 7 carpus.

Toro Piccolo, îlot La Folaca, île Cavallo, îlot Luigi Giafferri, îlot Gian Pietro Gaffori, îlot Silene, grand îlot des Bruzzi, île Piana de Portigliolo, île Mezzu Mare, île de Cala d'Alga, îlot de Cala Maiora, îlot Garganellu, îlot Palazzinu, îlot Porri, îlot Nord de Morsetta (LANZA & POGGESI 1986).

DISTRIBUTION. — Known from Corsica and some islets around Sardinia (ARGANO & MANICASTRI 1991).

REMARKS

The large number of specimens examined permits some morphological observations on this taxon:

a, the maximum length is 15 mm for the male and 21 mm for the female (13 mm according to VANDEL 1951);

b, the shape of both cephalon and telson is very variable, also within the same population;

c, dorsal granulations are in general feeble, but in some specimens they are well developed;

d, the male pereopod 7 ischium has a setose area, the tergal margin of the carpus is usually not or only slightly humped, also in very large specimens.

The variability found in the Corsican populations shows that the systematics of the *orarum*-group is still unclear and a re-examination of the different subspecies (see VANDEL 1962) is necessary. Moreover, in central-southern Italy there is a form of this group which was considered to be a subspecies of *P. orarum* Verhoeff, 1910 (*P. orarum verhoeffi* Dahl, 1916) (FERRARA & TAITI 1978; TAITI & FERRARA 1980), but which certainly refers to *Porcellio pumicatus* Budde-Lund, 1885 (TAITI & FERRARA 1989a). Thus, *P. orarum* should be a junior synonym of *P. pumicatus*. Since we have not examined any specimen referable to the typical *P. orarum*, while awaiting a complete analysis of all the forms in this group, we prefer to reserve the name *pumicatus* only for the Italian taxon.

Porcellio lamellatus sphinx (Verhoeff, 1931)

Porcellio lamellatus; DOLLFUS 1899: 188; VANDEL 1954a: 74.

Porcellio lamellatus sphinx; VANDEL 1962: 744, figs 357-358A, D-F; LANZA & POGGESI 1986: 121, 176, 185.

MATERIAL EXAMINED. — Many ♂♂ and ♀♀ collected from the following localities: Barcaggio (Cap Corse); anse de Faggiola (désert des Agriates); Calzarello (SE of Ghisonaccia); baie d'Avena (SW of Sartène); Punta di Fautea (between Solenzara and Porto-Vecchio); Golfo di Sogno (NE of Porto-Vecchio); Capo Pertusato (SE of Bonifacio); îlot terre and îlot intermédiaire (near îlot Finocchiarola, N of Macinaggio); île Piana de Portigliolo (golfe d'Ajaccio).

PREVIOUS RECORDS. — Étang de Biguglia (DOLLFUS 1899); îlot terre, îlot intermédiaire, île Piana de Portigliolo (LANZA & POGGESI 1986).

DISTRIBUTION. — This littoral subspecies occurs in the eastern Iberian Peninsula, southern France, Corsica, Sardinia, Italy and Dalmatia.

REMARKS

SCHMALFUSS (1992: 4, 12) suggests to transfer *P. lamellatus* to the genus *Proporcellio* Verhoeff, 1907, on the basis of the clear likeness of this species with *Proporcellio quadriseriatus* Verhoeff, 1917. On the contrary, in an electrophoretic analysis of some species of *Porcellio*

including *P. lamellatus*, VIGLIANISI *et al.* (1992) show that the genetic distance of this species falls within the range of the genus. Thus, we prefer to keep this taxon in *Porcellio*.

Family ARMADILLIDIIDAE
Genus **ALLOSCHIZIDIUM** Verhoeff, 1919

Alloschizidium was erected by VERHOEFF (1919) as a subgenus of *Armadillidium* Brandt, 1833 to include *Armadillidium pruvoti* Racovitza, 1907, from a cave in the French Maritime Alps. It was later considered by the same author (VERHOEFF 1933a) to be a subgenus of *Troglarmadillidium* Verhoeff, 1900, and finally by VERHOEFF (1933b) and ARCANGELI (1948) to be a full genus.

VANDEL (1944a, 1954d, 1962) divided the family Armadillidiidae into two subfamilies on the basis of cephalic structure: Eluminae, with eleven genera, caracterized by a cephalon with no postscutellar line[1], and Armadillidiinae, including the sole genus *Armadillidium*, with a cephalon bearing such a line. According to VANDEL (1954d), since the postscutellar line is present in *A. pruvoti*, this species has to be in *Armadillidium*, of which consequently *Alloschizidium* was considered to be a junior synonym. The presence of a schisma at the posterior corners of pereonite 1 justified only the institution of a group of species (the *pruvoti*-group), which included *A. pruvoti* (with the typical form and a Corsican form), *A. mateui* Vandel, 1953 and *A. racovitzai* Vandel, 1954.

Examination of many specimens belonging to the Corsican form of *A. pruvoti* shows that this taxon represents a distinct species, even if morphologically very close to *A. pruvoti*, which cannot be placed in *Armadillidium*. Moreover, it seems difficult to include this species in a subfamily (Armadillidiinae) different from the other species ascribed by VANDEL himself to the Eluminae (*e.g.* considering only the Corsican fauna, *Paraschizidium remyi* Vandel, 1944).

Some questions arise from the above considerations:

— Is *A. pruvoti* a real *Armadillidium* and therefore *Alloschizidium* is synonymous with *Armadillidium*?

— Does *Paraschizidium remyi*, apparently so similar to *A. pruvoti*, belong to a different genus and subfamily?

— In general, what is the validity of morphologically very close genera such as *Paraschizidium* Verhoeff, 1919, *Typhloschizidium* Arcangeli, 1933 and *Nesolidium* Verhoeff, 1941?

In order to clarify the taxonomic status of the Corsican species, we examined the following species, also using the scanning electron microscope: *Armadillidium pruvoti* "forme de Corse" (*sensu* Vandel); *Paraschizidium coeculum* (Silvestri, 1897), of which the type species *P. olearum* Verhoeff, 1919, is a junior synonym (MANICASTRI & TAITI 1994); *P. olearum sensu* Vandel, 1962 *nec* Verhoeff, 1919; *P. remyi*; *Typhloschizidium sardoum* Arcangeli, 1933, type species of the genus; *T. igiliense* Ferrara & Taiti, 1978; *T. cottarellii* Argano & Pesce, 1974; and *Nesolidium buchnerorum* Verhoeff, 1941, type species of the genus (type specimens from Ischia Island).

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1. According to VANDEL (1944a, 1954d, 1962) the postscutellar line is a neoformation. On the contrary, SCHMALFUSS (1989: 209) states that this line is probably homologous to the frontal line in other families. Though the latter opinion is certainly more likely, we prefer to keep using VANDEL's terminology, awaiting a specific study on this matter.

The following results emerged:

— *P. coeculum* and *P. olearum sensu* Vandel have a very simple cephalon, *i.e.* with a scutellum laterally defined only by the antennary depressions and superiorly with no distinct margin, and with a rudimentary postscutellar line. Moreover the antennule consists of two articles and the posterior corners of pereonite 1 are not cleft. In our opinion *Paraschizidium* is a valid genus and includes with certainty these two species. All the other species presently in *Paraschizidium* must be re-examined to define their correct taxonomic status. Certainly the Greek species described in this genus by SCHMALFUSS (1981) and SFENTHOURAKIS (1992; 1995) do not belong to *Paraschizidium* since they lack a postscutellar line, the scutellum is well defined on all its sides and the posterior corners of pereonite 1 are distinctly cleft.

— *Armadillidium pruvoti* "forme de Corse", *Paraschizidium remyi*, *Typhloschizidium igiliense*, *T. cottarellii* and *N. buchnerorum* possess a cephalon with distinct postscutellar and frontal lines and a well-defined scutellum (in *T. cottarellii* and *N. buchnerorum* the superior margin is interrupted in the middle), pereonite 1 with a schisma at the posterior corners, and the antennule with three articles. In our opinion, these species constitute a homogeneous group, clearly different from *Armadillidium*, characterized by the ability to roll up in the form of a lengthened ovoid (as in *Paraschizidium*), the cephalon with antennary lobes directed frontwards and distinct postscutellar and frontal lines, antennule of three articles and pereonite 1 with schisma. For all these species we propose to revalidate the genus *Alloschizidium*, of which *Nesolidium* is a junior synonym.

— *Typhloschizidium sardoum* apparently differs from the above-mentioned species in lacking the frontal line, while it shares all the other characters. The lack of the frontal line is certainly a secondary feature caused by the very deep concavity of the antennary depressions. In fact, a species from a cave in southern Tuscany (*Alloschizidium cavernicolum* Taiti & Ferrara, 1995), morphologically very close to *T. sardoum*, shows the antennary depressions with concavities slightly less marked and both lines (postscutellar and frontal) still present and very close to each other (TAITI & FERRARA 1995b). In conclusion, also *T. sardoum* must be included in *Alloschizidium*, of which *Typhloschizidium* is a junior synonym.

At present, *Alloschizidium* includes the following species (TAITI & FERRARA 1995b): *A. pruvoti*, *A. campanellii* n.sp. (= *A. pruvoti* "forme de Corse" *sensu* Vandel), *A. racovitzai*, *A. igiliense*, *A. remyi*, *A. cottarellii*, *A. buchnerorum*, *A. sardoum*, *A. eeae* (ARGANO & UTZERI 1973) and *A. cavernicolum*.

Alloschizidium campanellii n.sp.
(Figs 21, 22, 27)

Armadillidium Pruvoti; VANDEL 1954a: 74; 1954d: 54, fig. 4 (*partim*: specimens from Corsica).

Armadillidium pruvoti "forme de Corse"; VANDEL 1962: 785, fig. 379.

MATERIAL EXAMINED. — 1 ♂ holotype (MZUF), 14 ♂♂, 19 ♀♀ paratypes (MZUF), 2 ♂♂, 2 ♀♀ paratypes (MNHN-Is4097), Tizzano (SW of Sartène), ilex grove, leg. S. Taiti and S. Campanelli, 15.V.1982; 2 ♂♂, 5 ♀♀ paratypes (MZUF), valley below chapelle Pianelli, between Casalabriva and Olmeto, leg. S. Taiti and

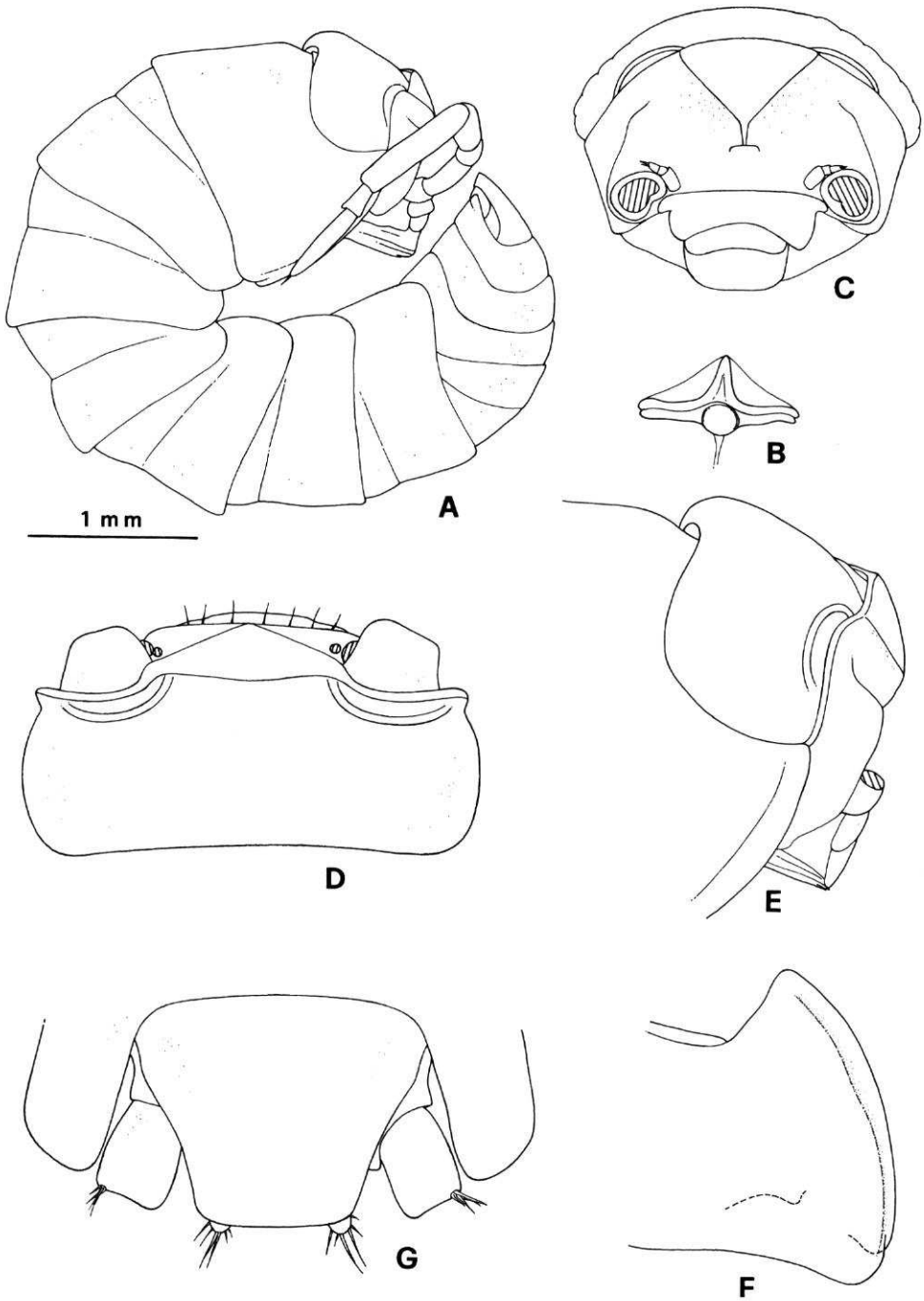

FIG. 21. — *Alloschizidium campanellii* n.sp.: A, adult ♀, lateral; B, dorsal scale-spine; C, cephalon, frontal; D, cephalon, dorsal; E, cephalon, lateral; F, right epimeron of pereonite 1, dorsal; G, telson and uropods.

S. Campanelli, 22.X.1982; 6 ♂♂, 21 ♀♀ paratypes (MZUF), Monte Rosso (SE of Sartène), meadow near ilex grove, leg. S. Taiti and S. Campanelli, 20.X.1982; 1 ♂ paratype (MZUF), same data, ilex grove.

PREVIOUS RECORDS. — Ste-Lucie-de-Porto-Vecchio, Bonifacio, Sartène and environs, Ajaccio and environs (VANDEL 1954d, 1962).

ETYMOLOGY. — The new species is named after our friend S. CAMPANELLI for his invaluable help in collecting the specimens.

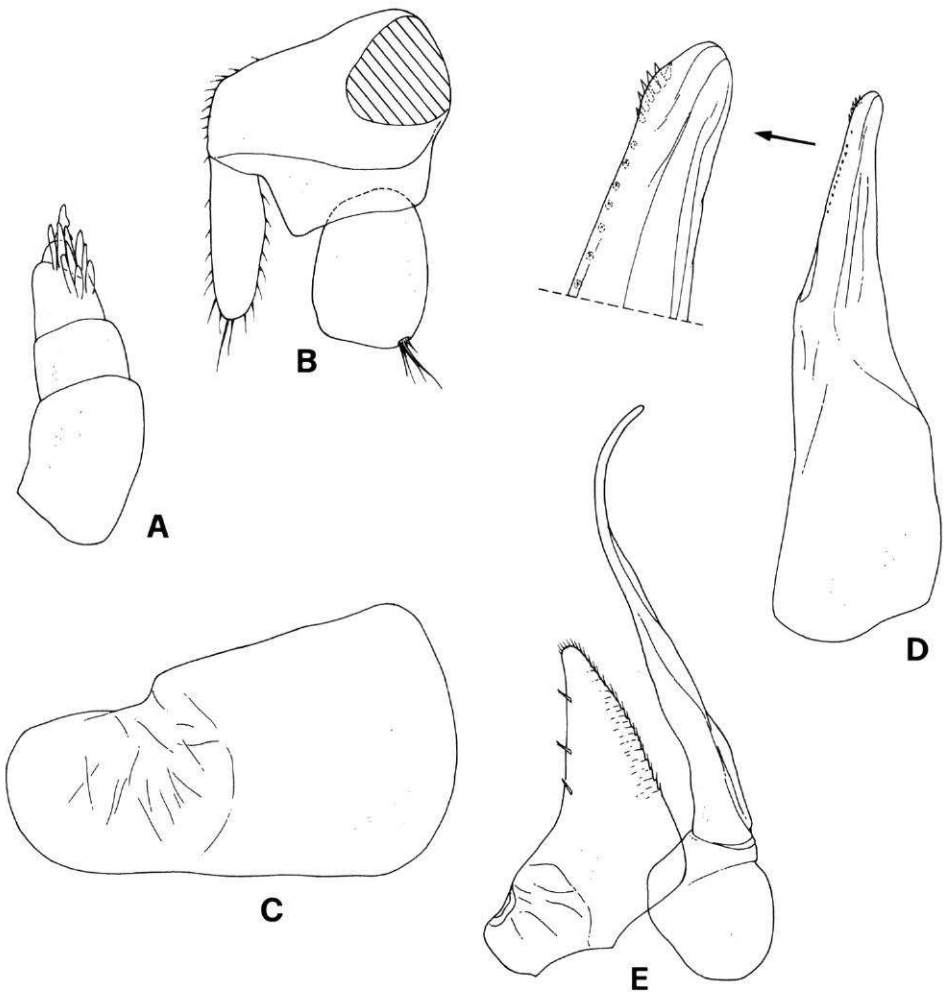

FIG. 22. — *Alloschizidium campanellii* n.sp., ♂: A, antennule; B, uropod; C, pleopod 1 exopod; D, pleopod 1 endopod; E, pleopod 2.

DESCRIPTION

Maximum diameter of the animal when rolled up: ♂, 3 mm; ♀, 3.5 mm.

Colourless body, eye absent. Dorsum smooth, covered with many tiny triangular scale-spines. Body strongly convex with vertical epimera, able to roll up into a perfect ball. Cephalon with triangular scutellum, very wide superiorly, bent over vertex but clearly separated and protruding from it; postscutellar line semicircular on both sides; antennary lobes quadrangular, directed frontwards. Pereonite 1 with posterior margin slightly sinuous; posterior corners bearing a schisma with external lobe distinctly protruding backwards compared with the inner one; a light depression along the whole lateral margin. Telson trapezoidal, slightly broader than long. Antennule of three articles with a tuft of superimposed aesthetascs at apex. Antenna with second flagellar article three times as long as first. Uropodal exopod longer than wide.

Male

Pleopod 1 exopod subrectangular, with no distinct posterior point; endopod with thickset distal part, rounded apex. Pleopod 2 as in Fig. 22E.

REMARKS

These specimens undoubtedly correspond to those from Corsica identified by VANDEL (1954a, 1954d, 1962) as *Armadillidium pruvoti*. According to the French author, the morphological differences between the Corsican population and the typical one are due to the subadult stage of the specimens observed. However, the abundant material examined by us, including male specimens of similar size to that of the typical *A. pruvoti*, shows that the differences noticed by VANDEL are constant and do not depend on the age of the specimens. Thus, the Corsican population belongs to a distinct species of the genus *Alloschizidium* together with the closely related *A. pruvoti*.

Alloschizidium campanellii differs from *A. pruvoti* in the shape of the telson with a broader basal part, uropodal exopod narrower and longer, male pleopod 1 exopod with no distinct posterior point. In cephalic structure *A. campanellii* resembles *A. remyi*, from which it is readily distinguished by the triangular instead of piliform dorsal scale-spines, the longer telson and uropodal exopod.

Alloschizidium remyi (Vandel, 1944) n. comb.
(Figs 23, 24, 27)

Paraschizidium Remyi Vandel, 1944a: 84, figs I-IV; 1954a: 74; ARCANGELI, 1948: 258.
Paraschizidium remyi; VANDEL 1962: 766, figs 367-368.

MATERIAL EXAMINED. — 1 ♀, grotte de Sisco, leg. S. Taiti, S. Vanni and A.M. Nistri, 3.IV.1995; 1 ♀, Cardo (W of Bastia), humus under ilex tree, leg. F. Bernini, 19.IV.1980; 2 ♂♂, 3 ♀♀, same locality, leg. S. Taiti and A. Poggesi, 25.VI.1984.

PREVIOUS RECORDS. — Convent of Ste-Catherine-de-Sisco (VANDEL 1944a).

DISTRIBUTION. — Species endemic to Corsica.

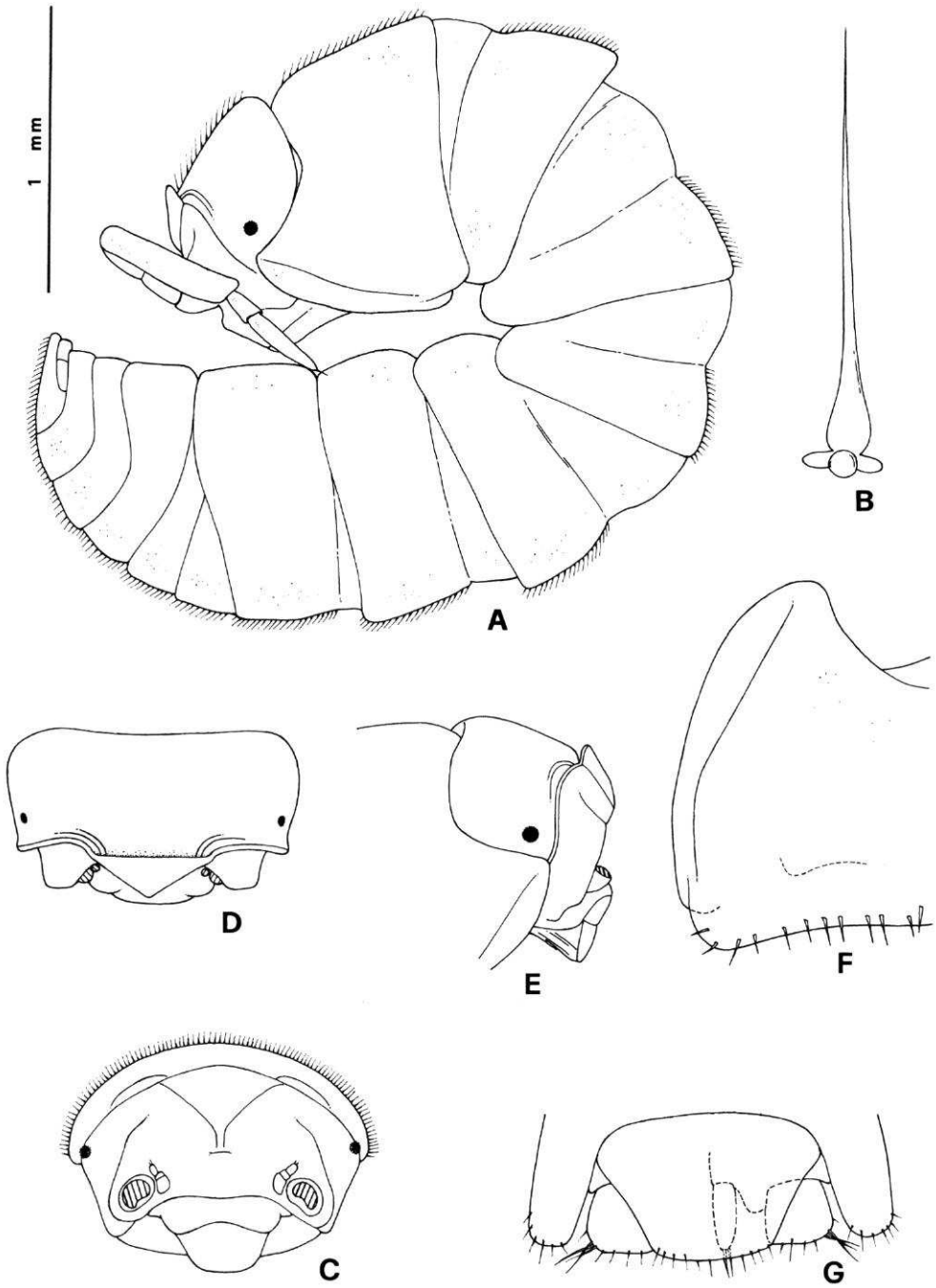

FIG. 23. — *Alloschizidium remyi*: A, adult ♀, lateral; B, dorsal scale-spine; C, cephalon, frontal; D, cephalon, dorsal; E, cephalon, lateral; F, left epimeron of pereonite 1, dorsal; G, telson and uropods.

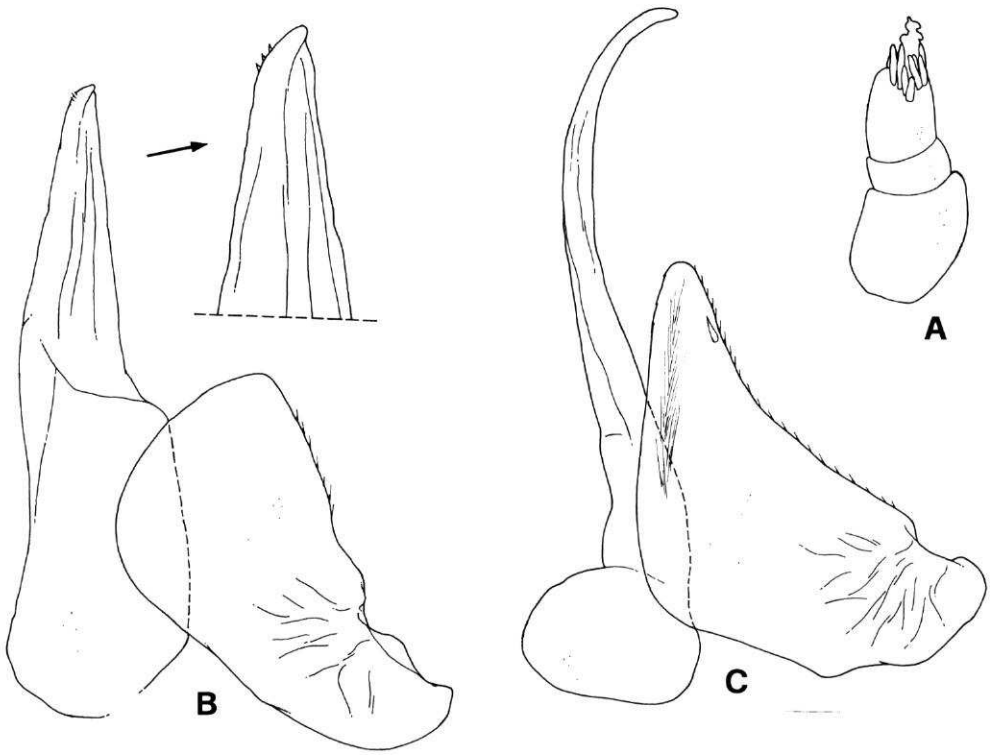

FIG. 24. — *Alloschizidium remyi*: A, antennule; B, ♂ pleopod 1; C, ♂ pleopod 2.

REMARKS

On the basis of the presence of a postscutellar line, schisma at the posterior corners of pereonite 1 and antennule with three articles, this species belongs to the genus *Alloschizidium* and not to *Paraschizidium*. The main diagnostic features of this species, including the previously unknown male characters, are illustrated in Figs 23, 24.

Alloschizidium cottarellii (Argano & Pesce, 1974) n. comb.
(Figs 25, 27)

MATERIAL EXAMINED. — 1 ♀, Punta de la Parata (W of Ajaccio), leg. S. Taiti, 14.V.1982; 2 ♀♀, 1 juv., same locality, leg. S. Taiti and S. Vanni, 8.III.1994; 5 ♀♀, 1 juv., between Cauro and Bocca di San Giorgio (E of Ajaccio), ilex grove, leg. S. Taiti, 14.V.1982; 10 ♂♂, 12 ♀♀, between Pietrosella and Fogolina (SE of Porticcio), ilex and arbutus grove, leg. S. Taiti and S. Campanelli, 21.X.1982; 7 ♀♀, forêt de Valle Mala, near col de St-Eustache (between Petreto-Bicchisano and Aullène), leg. S. Taiti and S. Campanelli, 22.X.1982; 1 ♀, near Punta di u Carapono (Coti-Chiavari), leg. S. Taiti and S. Campanelli, 21.X.1982; 3 ♂♂, 5 ♀♀, Capo

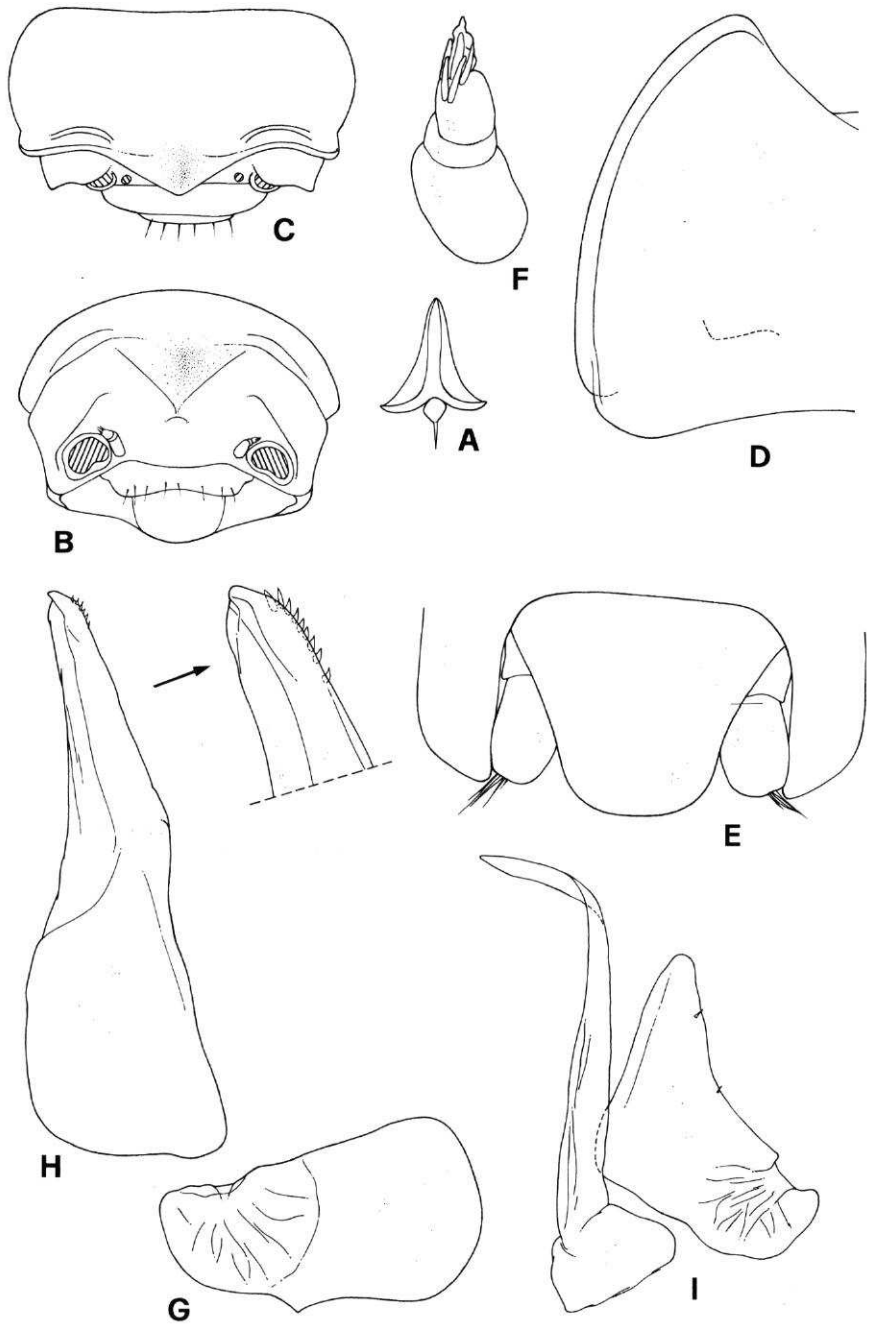

FIG. 25. — *Alloschizidium cottarellii*: A, dorsal scale-spine; B, cephalon, frontal; C, cephalon, dorsal; D, left epimeron of pereonite 1, dorsal; E, telson and uropods; F, antennule; G, ♂ pleopod 1 exopod; H, ♂ pleopod 1 endopod; I, ♂ pleopod 2.

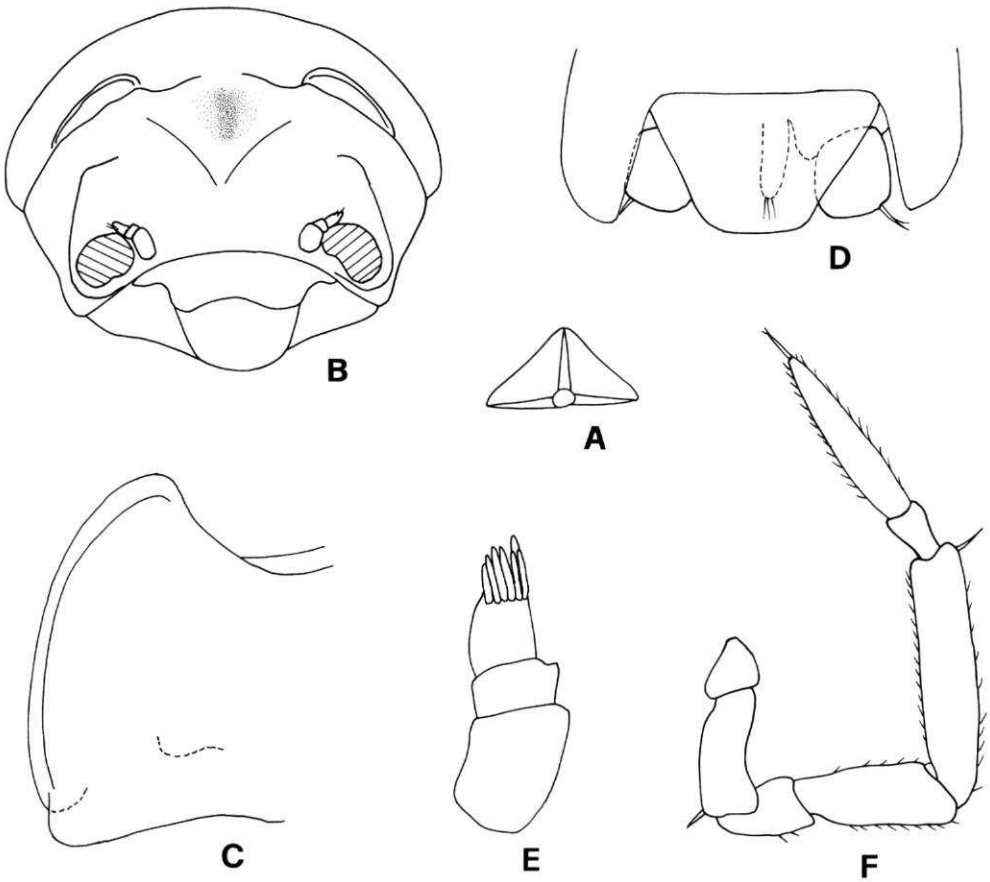

FIG. 26. — *Alloschizidium buchnerorum*: A, dorsal scale-spine; B, cephalon, frontal; C, left epimeron of pereonite 1, dorsal; D, telson and uropods; E, antennule; F, antenna.

Pertusato (SE of Bonifacio), leg. S. Taiti, 18.V.1982; 1 ♀, same locality, leg. S. Taiti and S. Campanelli, 19.X.1982; 1 ♂, 1 ♀, same locality, leg. S. Taiti, 29.VI.1991.

DISTRIBUTION. — Southern Corsica and northern Sardinia.

REMARKS

These specimens correspond well to the description by ARGANO & PESCE (1974) of *Typhloschizidium cottarellii* from Sardinia (Ardara, Sassari).

Due to the presence of a postscutellar line on the cephalon, this species is ascribed to the genus *Alloschizidium*. The main diagnostic characters of this species are illustrated in Fig. 25.

A. cottarellii is morphologically similar to *A. buchnerorum* (Verhoeff, 1941) from Ischia Island, from which it differs in the longer scale-spines on the dorsum, more broadly rounded

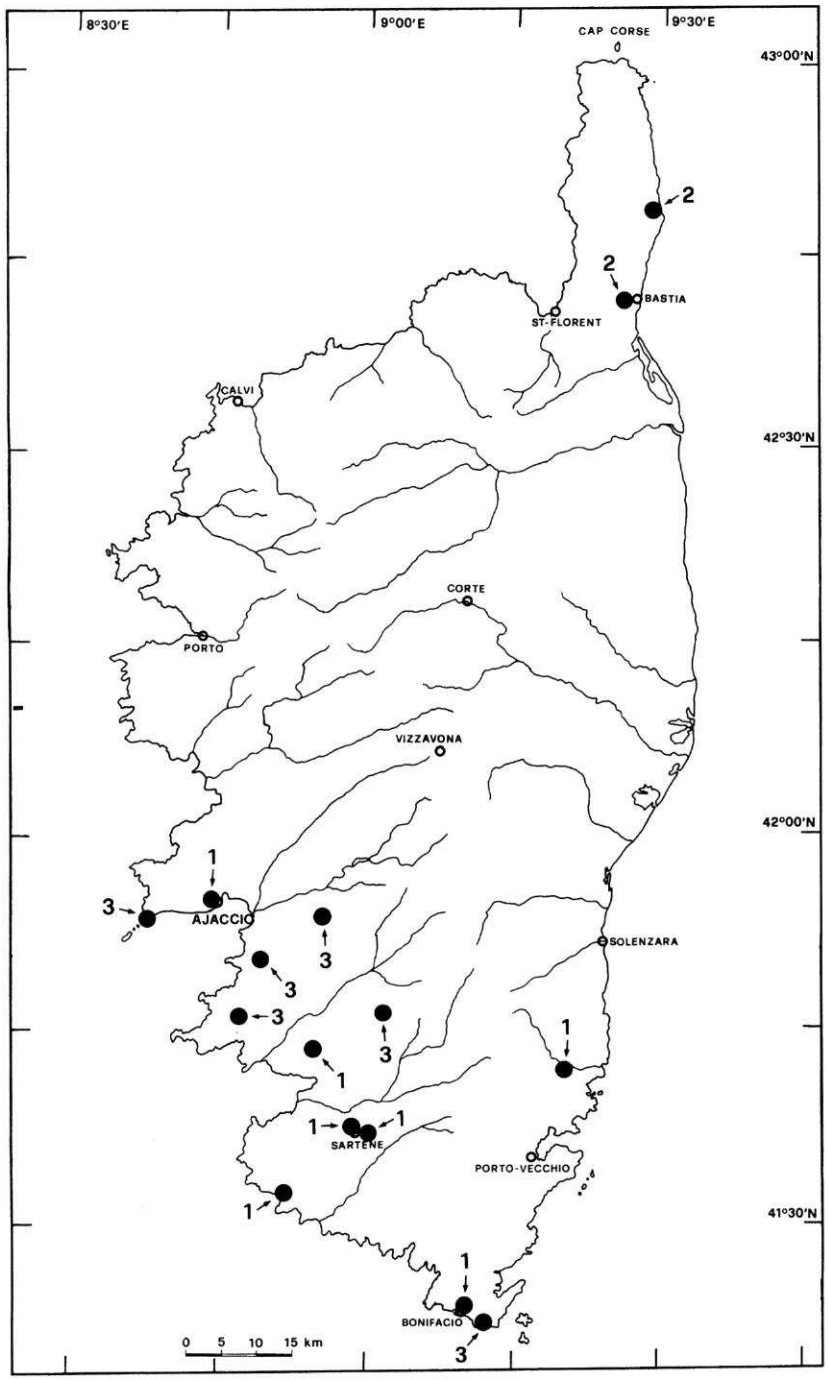

FIG. 27. — Distribution in Corsica of *Alloschizidium* species: 1, *A. campanellii*; 2, *A. remyi*; 3, *A. cottarellii*.

posterior corners of pereonite 1, and longer telson and uropodal exopod. Re-examination of three syntypes (♀♀) of *A. buchnerorum*, in micropreparations deposited at the Zoologischen Staatssammlung, Munich, allowed us to illustrate the main characters of this species (Fig. 26).

Genus **ARMADILLIDIUM** Brandt, 1833

Armadillidium nasatum nasatum Budde-Lund, 1885
(Fig. 31)

Armadillidium nasatum; VANDEL 1954a: 74; 1962: 787, fig. 380.

MATERIAL EXAMINED. — 1 ♂, 1 ♀, 1 juv., Folelli, along Fium Alto, leg. P. Magrini, 5.XI.1983; many ♂♂ and ♀♀, same locality, leg. S. Taiti and A. Poggesi, 20.VI.1984.

PREVIOUS RECORDS. — Bonifacio (VANDEL 1962).

DISTRIBUTION. — Central-northern Italy, France, northern Spain, Netherlands, Great Britain and Ireland. It has also been introduced to the USA and recorded from many hothouses in Europe.

REMARKS

These specimens correspond perfectly to the nominal subspecies since they lack dorsal granulations, the cephalic scutellum is very protruding above the vertex with parallel sides and upper margin slightly concave, and the indentation at the base of the epimera on the posterior margin of pereonite 1 is slightly marked.

Armadillidium nasatum sardoum Arcangeli, 1950
(Fig. 31)

MATERIAL EXAMINED. — 1 ♂, Asco river valley, loc. Le Cabanelle, leg. S. Taiti and A. Poggesi, 20.VI.1984; 13 ♂♂, 6 ♀♀, Lovo Santo, swamp at mouth of Cavo river, leg. B. Lanza, VIII.1971; 15 ♂♂, 12 ♀♀, same locality, leg. S. Taiti, 10.VII.1978.

DISTRIBUTION. — Corsica and Sardinia.

REMARKS

These specimens differ from those of the preceding subspecies in the smaller size (ovigerous ♀ 13 mm long vs. 17 mm), the uniformly grey colour, the presence of tiny but clearly visible granulations on the dorsum, the cephalic scutellum less protruding with convergent sides and upper margin convex. On the basis of those characters they correspond to *A. nasatum sardoum* described by ARCANGELI (1950) from several localities in Sardinia.

Armadillidium granulatum Brandt, 1833

Armadillidium granulatum; DOLLFUS 1899: 186; ARCANGELI 1914: 467; VANDEL 1954a: 74; 1962: 796, fig. 383; LANZA & POGGESI 1986: 120, 177.

MATERIAL EXAMINED. — Many ♂♂ and ♀♀ collected from the following localities: Centuri-Port; marine de Pietracorbara; Miomo (N of Bastia); Fautea (between Solenzara and Porto-Vecchio); between Bonifacio and col d'Arbia; Bonifacio; Capo Pertusato (SE of Bonifacio); île de Pinarello.

PREVIOUS RECORDS. — Bonifacio, Bastia (DOLLFUS 1899); "Ghisernia laterni" (ARCANGELI 1914); Corsica (VANDEL 1954a, 1962); île de Pinarello (LANZA & POGGESI 1986).

DISTRIBUTION. — Littoral species distributed along all the coasts of the Mediterranean, the Atlantic coasts of Morocco, Portugal, France, Madeira and the Azores.

Armadillidium sordidum Dollfus, 1887
(Fig. 31)

Armadillidium sordidum; DOLLFUS 1892: 176-177; 1896: 358; 1899: 187; ARCANGELI 1925: 8; VANDEL 1954a: 74; 1962: 816, figs 392-393.

Armadillidium (Armadillidium) sordidum sordidum; ARCANGELI 1954b: 155, pls 15-16.

MATERIAL EXAMINED. — Many ♂♂ and ♀♀ collected from the following localities: Camera (near Centuri); near Meria; between Morsiglia and Pastina; 2 km SE of col de Ste-Lucie (between Pino and Luri); Carbonacce (S of Luri); Selmacci (SW of Pietracorbara); St-Léonard (W of marine de Pietracorbara); between Bastia and St-Florent; Bevinco river valley, below col de S. Stefano; Urtaca; near Murato; lower valley of Asco river; 3 km S of Ponte Leccia, along left bank of Golo river; Folelli, along Fium Alto; Francardo; 1.6 km down from Stazzona (near Piedicroce).

PREVIOUS RECORDS. — Bastia and Porto-Vecchio (?) (DOLLFUS 1892, 1899; ARCANGELI 1925); Orezza (DOLLFUS 1899).

DISTRIBUTION. — This species has a typical Tyrrhenian distribution. It is found in southern France (Maures massif), Corsica, Sardinia, Liguria, Tuscany and Umbria.

REMARKS

In Corsica this species is common on the north-eastern part of the island (in the so-called "Alpine Corsica"), while it seems to be absent in the granitic part. Thus, the record from Porto-Vecchio by DOLLFUS (1892) is doubtful and most probably is due to a misidentification.

Armadillidium assimile Budde-Lund, 1885

Armadillidium Zenckeri; DOLLFUS 1887: 9; ARCANGELI 1914: 461.

Armadillidium esterelanum; DOLLFUS 1892: 139; 1896: 358; SCHARFF 1894: 163.

Armadillidium vizzavonense Verhoeff, 1926: 263; 1928: 121; ARCANGELI 1950: 80; VANDEL 1953a: 164.

Armadillidium vizzavonensis; VANDEL 1954a: 74.

Armadillidium assimile; VANDEL 1962: 803, fig. 386; BERON 1972a: 13.

MATERIAL EXAMINED. — Many ♂♂ and ♀♀ collected from the following localities: Barcaggio (Cap Corse); near Rogliano; Centuri-Port; between Macinaggio and marine de Meria; near Meria; near Carbonacce (S of Luri); marine de Giottani (between Nonza and Centuri-Port); marine de Pietracorbara; near convent of Sta Catterina de Sisco; near Crosciano along Sisco river; Cardo (W of Bastia); anse de Faggiola (désert des Agriates); St-Florent; Casta (SW of St-Florent); Olmeta-di-Tuda; col de S. Stefano (S of Olmeta-di-Tuda); défilé de Lancone, between Casatorra and Oletta; left bank of Golo river, between Barchetta and Casamozza; near grotte de Pietralbello (Moltifao); Asco river valley; plage de Caspio (NW of Porto); 4 km E of Zonza; Fautea (between Solenzara

and Porto-Vecchio); Lovo Santo, swamp at mouth of Cavo river; Taglio Rosso (W of Sta-Lucia-di-Porto-Vecchio); Golfo di Sogno; near Porto-Vecchio; Monte Rosso (SE of Sartène); dolmen de Fontanaccia (S of Sartène); Tizzano and environs (SW of Sartène); near Ermitage de la Trinité (NW of Bonifacio).

PREVIOUS RECORDS. — Bastia (DOLLFUS 1892; SCHARFF 1894; VERHOEFF 1928); Corte, Vico, La Solenzara, l'Ospedale, Porto-Vecchio (DOLLFUS 1892); Vizzavona (DOLLFUS 1892; VERHOEFF 1928; ARCANGELI 1950); between Bastia and S. Martino (VERHOEFF 1926; ARCANGELI 1950); Île-Rousse (VERHOEFF 1928; ARCANGELI 1950); grotte de Carpiniccia (Pietroso) (VANDEL 1953a; BERON 1972a); all Corsica (VANDEL 1962).

DISTRIBUTION. — Beside Corsica, it is known from Sardinia, Tuscany, central-southern France, eastern and southern Spain, Portugal and the Azores.

Armadillidium lanzai n.sp.

(Figs 28, 31)

Armadillidium lanzai (nomen nudum); LANZA & POGGESI 1986: 42, 55, 120, 175, 177, 179, 183.

MATERIAL EXAMINED. — 1 ♂ holotype (MZUF), 38 ♂♂, 52 ♀♀ paratypes (MZUF), 2 ♂♂, 2 ♀♀ paratypes (MNHN-Is4101), îlot Toro Grande, leg. S. Taiti, 17.V.1982; 1 ♀ paratype (MZUF), Fautea (between Solenzara and Porto-Vecchio), leg. B. Conti and B. Lanza, VII-VIII.1977; 2 ♂♂, 2 ♀♀ paratypes (MZUF), same locality, leg. S. Taiti, 17.V.1982; 1 ♂ paratype (MZUF), same locality, leg. S. Taiti and S. Campanelli, 19.X.1982; 3 ♂♂, 1 ♀ paratypes (MZUF), île de la Giraglia, leg. R. Brizzi, R. Innocenti and S. Turillazzi, 30.IX.1972; 3 ♀♀ paratypes (MZUF), same locality, leg. R. Brizzi and R. Pirozzi, 1.VI.1972; many ♂♂ and ♀♀ paratypes (MZUF), same locality, leg. S. Taiti and A. Poggesi, 26.VI.1984; 1 ♂ paratype (MZUF), île de Pinarello, leg. B. Conti and N. Lanza, 10.VIII.1973; 2 ♂♂, 3 ♀♀ paratypes (MZUF), îlot Toro Piccolo, leg. S. Campanelli, 17.V.1982; 13 ♂♂, 23 ♀♀ paratypes (MZUF), îlot Luigi Giafferri (Lavezzi), leg. B. Lanza, 6.VIII.1974.

ETYMOLOGY. — The new species is named after our friend Prof. B. LANZA, Florence, in recognition of his valuable contribution to the knowledge of the Corsican fauna.

DESCRIPTION

Maximum dimensions: ♂, 11.5 × 4.4 mm; ♀, 13 × 5.5 mm.

Colour variable according to the population: usually grey-brown with large pale spots, irregularly arranged; the specimens from îlot Toro Grande and îlot Toro Piccolo have a yellowish ground colour which blends with the pale spots. Dorsum with light granulations. Animals able to roll up into a ball, mesosphaeric type, with anterior corners of pereonite 1 slightly bent up. Eye with 18-20 ommatidia. Cephalon with wide scutellum, slightly protruding and not bent over the vertex, anteriorly convex and posteriorly strongly concave, so that a deep fossette is visible between the scutellum and the anterior margin of the vertex; upper margin of the scutellum slightly concave; antennary lobes quadrangular, protruding frontwards, with antennary grooves shallow. Pereonite 1 with posterior margin regularly sinuous; lateral margin slightly impressed in the posterior third. Telson somewhat broader than long, trapezoidal, with more or less narrow apex and posterior corners rounded.

Male

Pereopod 7 ischium with sternal margin almost straight with some small verrucae, rostral surface with an area of short setae; merus with a small tuft of short setae on the basal part of the rostral surface. Pleopod 1 exopod with a long posterior point, medial margin regularly curved with short spines.

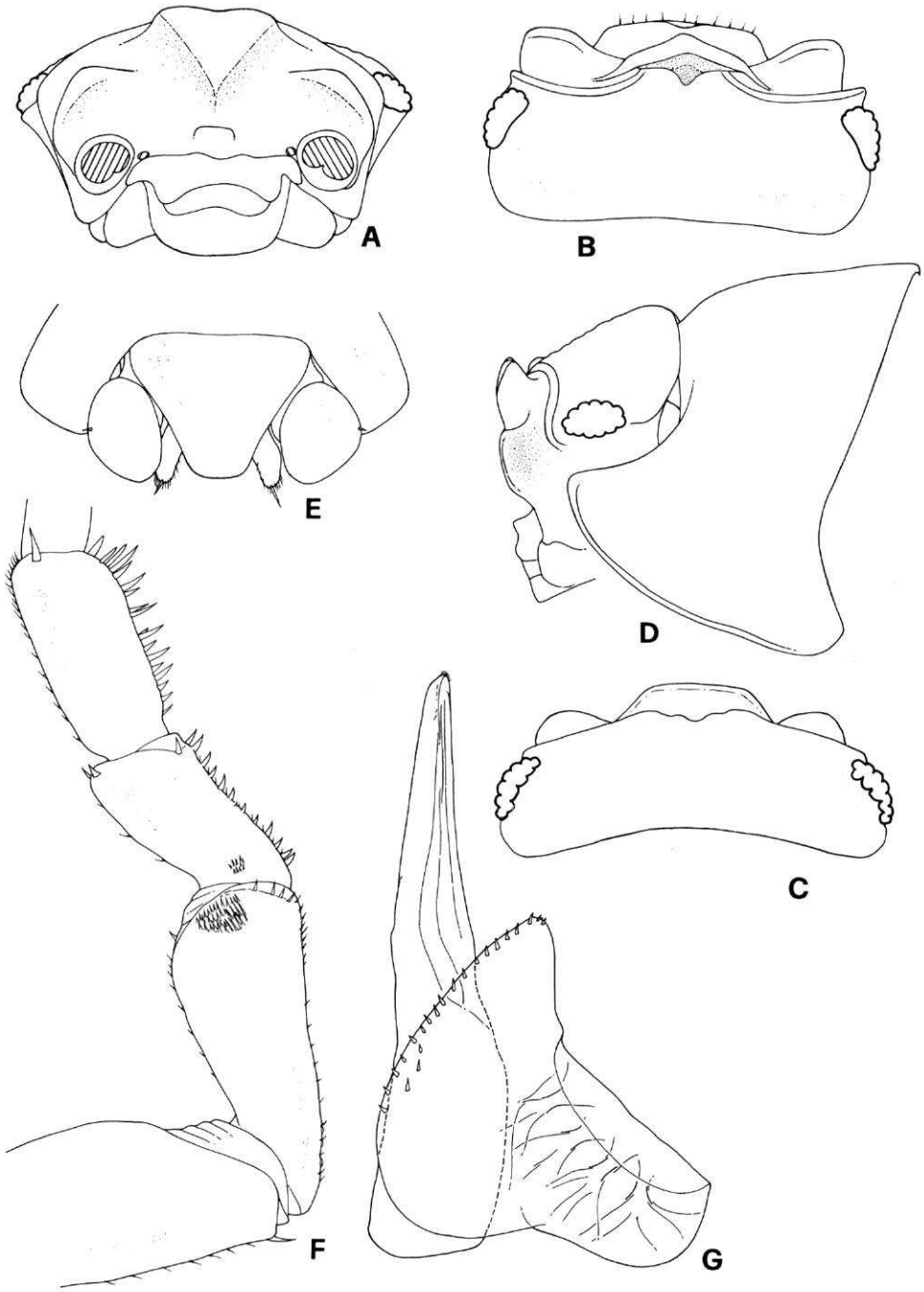

FIG. 28. — *Armadillidium lanzai* n.sp., specimens from îlot Toro Grande: A, cephalon, frontal; B, cephalon, dorsal; C, cephalon, from back; D, cephalon and pereonite 1, lateral; E, telson and uropods; F, ♂ pereopod 7; G, ♂ pleopod 1.

REMARKS

The new species shows morphological affinities with *Armadillidium quinquepustulatum* Budde-Lund, 1885, originally described from Algeria and later recorded from the Maures Massif in southern France, and with *A. maculatum* Risso, 1816, from the Maritime Alps. It is distinguished from the former by the different colour pattern, the more developed scutellum, and the male pereopod 7 ischium more thickset, with no spines on tergal margin and sternal margin less concave with no brushes of setae. It differs from the latter in the colour pattern, the scutellum shorter and not bent over the vertex, telson with wider apex, uropodal exopod shorter and the male pleopod 1 exopod with much more developed posterior point.

The record of this species from an islet near Sardinia (ARGANO & MANICASTRI 1991) is due to a misidentification (MANICASTRI pers. com.).

Armadillidium vulgare (Latreille, 1804)

Armadillidium vulgare; DOLLFUS 1899: 187; VERHOEFF 1926: 263; VANDEL 1954a: 74; BERON 1972a: 13; LANZA & POGGESI 1986: 120, 183.

MATERIAL EXAMINED. — Many ♂♂ and ♀♀ collected from the following localities: Tollare and Barcaggio (Cap Corse); Centuri-Port; near Meria; St-Léonard (W of marine de Pietracorbara); marine de Pietracorbara; Sta Catterina de Sisco; Bastia; anse de Faggiola and désert des Agriates; Casta (SW of St-Florent); défilé de Lancone; col de S. Stefano (S of Olmeta-di-Tuda); Urtaca; near Murato; col de S. Colombano (E of Belgodère); 1 km W of Altiani (SE of Speloncato); Asco river valley, S of Moltifao; Folelli, along Fium Alto; near grotte de Sabara (Castiglione); Francardo; Prunete (E of Cervione); plage de Caspio (NW of Porto); 2 km S of Corte; Ghisoni; col de Verde (S of Ghisoni); Ghisonaccia; 1 km W of Tolla (Prunelli river valley); Porticcio; Monte Incudine; col de Bavella; Taravo river valley; Conca (N of Ste-Lucie-de-Porto-Vecchio); Fautea (between Solenzara and Porto-Vecchio); Lovo Santo, swamp at mouth of Cavo river; valley below chapelle Pianelli, between Casalabriva and Olmeto; mouth of Rizzanèse river, S of Propriano; Monte Rosso, SE of Sartène; la Trinité (N of Porto-Vecchio); Porto-Vecchio; between Bonifacio and col d'Arbia; near ermitage de la Trinité, W of Bonifacio; Bonifacio; Capo Pertusato (SE of Bonifacio); îlot Sperduto Piccolo (E of île Cavallo); île Lavezzi; îlot Cala di u Ghiuncu (île Lavezzi).

PREVIOUS RECORDS. — Between Bastia and Santa Lucia, Santa Reparata, Gravona (Ajaccio) (VERHOEFF 1926); grotte Roumandella (Caporalino) (BERON 1972a); îlot Cala di u Ghiuncu (LANZA & POGGESI 1986).

DISTRIBUTION. — Cosmopolitan species.

Armadillidium album Dollfus, 1887
(Fig. 31)

Armadillidium album; BIGOT, 1977: 7, 12.

MATERIAL EXAMINED. — 8 ♂♂, 2 ♀♀, Calzarello, near Ghisonaccia, beach, leg. S. Taiti and S. Campanelli, 18.X.1982.

PREVIOUS RECORDS. — Eastern coast of Corsica (BIGOT 1977).

DISTRIBUTION. — This halophilic species is widespread along the coasts of the Mediterranean and the Atlantic coasts of Europe.

Armadillidium littorale n.sp.

(Figs 29, 31)

MATERIAL EXAMINED. — 1 ♂ holotype (MZUF), many ♂♂ and ♀♀ paratypes (MZUF), 2 ♂♂, 2 ♀♀ paratypes (MNHN-Is4100), Capo Pertusato (SE of Bonifacio), under stones near beach, leg. S. Taiti and S. Campanelli, 19.X.1982; 5 ♀♀ paratypes (MZUF), same locality, leg. S. Taiti, 18.V.1982; 1 ♀ paratype (MZUF), same locality, leg. S. Taiti, 29.VI.1991.

ETYMOLOGY. — L. *littoralis* = littoral. The name of the species refers to the habitat where the specimens were collected, *i.e.* under stones beyond the upper limit of the beach.

DESCRIPTION

Maximum dimensions: ♂ and ♀ 4 × 1.5 mm.

Brown colour with epimera and muscle spots pale. Dorsum rough, with numerous tiny triangular scale-spines. Animals able to roll up into a perfect ball, eusphaeric type. Eye with 10-12 ommatidia. Cephalon with postscutellar and frontal lines, the former clearly visible only in the medial part; scutellum slightly protruding over the vertex, with upper margin continuing the frontal line, and anterior surface distinctly hollow; antennary lobes oblique, neither thickened nor bent backwards. Pereonite 1 with posterior margin regularly concave; lateral margin slightly swollen and grooved. Telson trapezoidal, much wider than long, with posterior corners broadly rounded. Antenna short and thickset, with second flagellar article about three times as long as the first. Pleopods 1-2 exopod with an indentation on outer margin of the tracheal field. Uropodal exopod much wider than long.

Male

Pereopods with no particular modifications. Pleopod 1 exopod with rounded posterior margin and no posterior point; endopod with stout distal part, apex slightly bent outwards. Pleopod 2 as in Fig. 29H.

REMARKS

Armadillidium littorale is morphologically close to *A. album*, from which it is readily distinguished by the different shape of the scale-spines, the lateral margin of pereonite 1 slightly swollen and grooved, no modifications on the male pereopod 7 and the male pleopod 1 exopod with no posterior point.

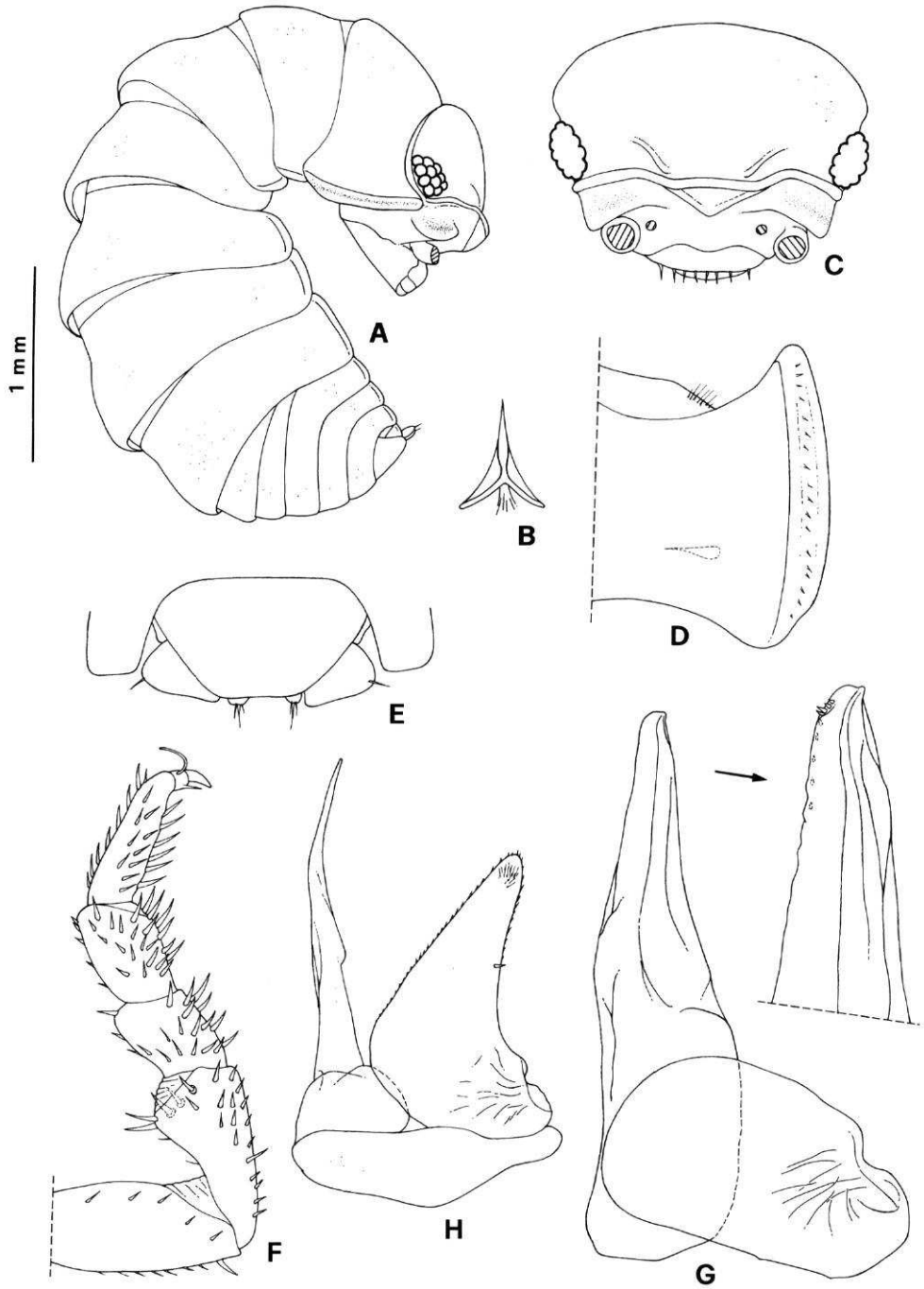

FIG. 29. — *Armadillidium littorale* n.sp.: A, adult ♀, lateral; B, dorsal scale-spine; C, cephalon, dorsal; D, right epimeron of pereonite 1, dorsal; E, telson and uropods; F, ♂ pereopod 7; G, ♂ pleopod 1; H, ♂ pleopod 2.

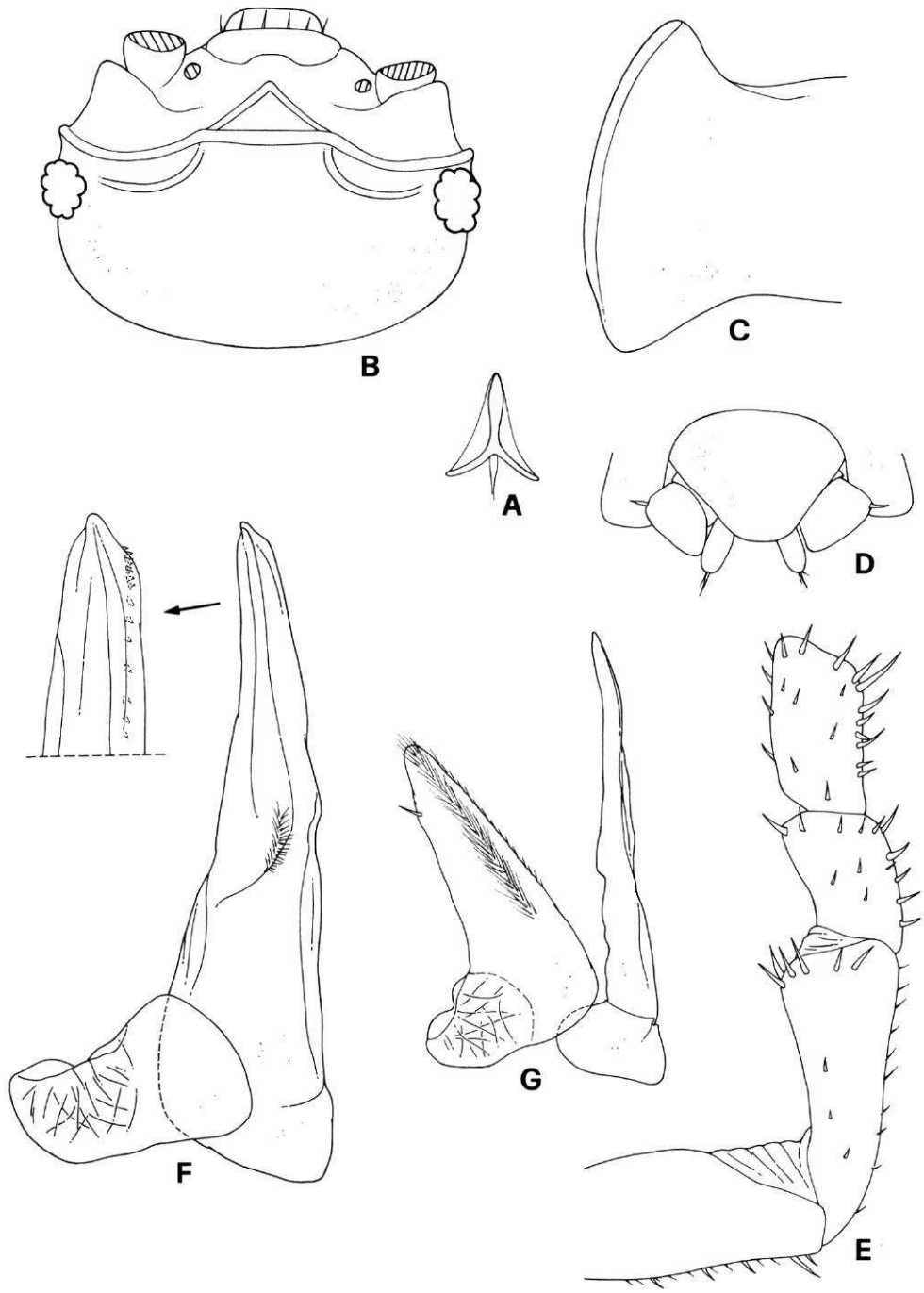

FIG. 30. — *Armadillidium torchiai* n.sp.: A, dorsal scale-spine; B, cephalon, dorsal; C, left epimeron of pereonite 1, dorsal; D, telson and uropods; E, ♂ pereopod 7; F, ♂ pleopod 1; G, ♂ pleopod 2.

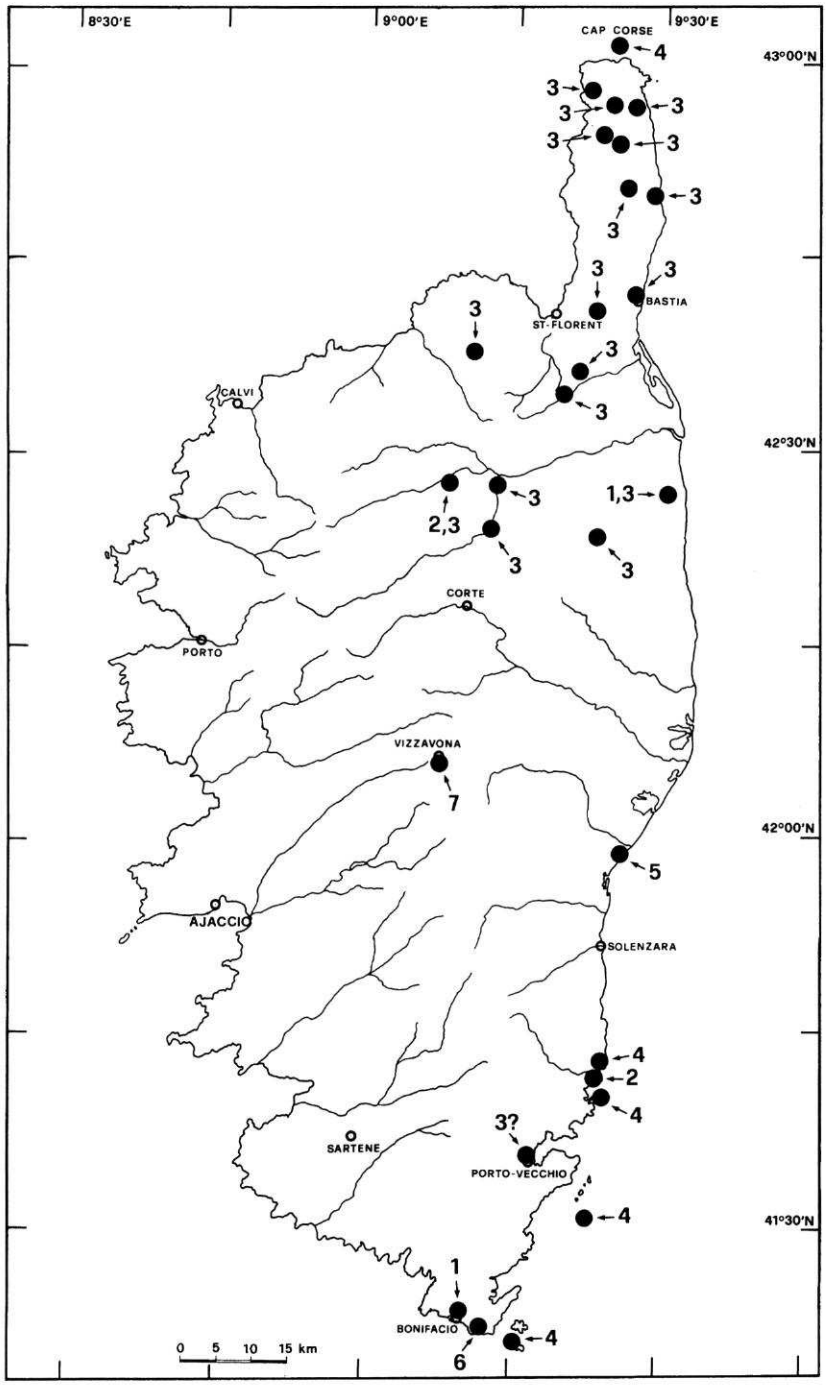

FIG. 31. — Distribution in Corsica of *Armadillidium* species (except *A. granulatum*, *A. assimile* and *A. vulgare*): 1, *A. nasatum nasatum*; 2, *A. nasatum sardoum*; 3, *A. sordidum*; 4, *A. lanzai*; 5, *A. album*; 6, *A. littorale*; 7, *A. torchiai*.

Armadillidium torchiai n.sp.
(Figs 30, 31)

MATERIAL EXAMINED. — 1 ♂ holotype (MZUF), 1 ♂ paratype (MZUF), forêt de Vizzavona, beech wood, 1000-1400 m, leg. A. Torchia and S. Zoia, 27-28.V.1982; 1 ♂ paratype (MV), Vizzavona, leg. M. Meregalli, 25.VIII.1982.

ETYMOLOGY. — The new species is named after one of its collectors, Mr A. TORCHIA, Genoa.

DESCRIPTION

Male

Maximum dimensions: 3.5 × 1.2 mm.

Brown colour with pale muscle spots. Dorsum rough with many small triangular scale-spines. Animals able to roll up into a perfect ball, eusphaeric type. Eye small, consisting of about eight ommatidia. Cephalon with postscutellar and frontal lines, the former visible for almost its entire length; scutellum slightly protruding above vertex, with upper margin continuing the frontal line and anterior surface distinctly concave; antennary lobes oblique, neither thickened nor bent backwards. Pereonite 1 with posterior margin regularly concave, lateral margin very slightly swollen. Telson wider than long, triangular with very broadly rounded apex. Antenna short and stout, with second flagellar article about three times longer than first. Pereopods without particular modifications. Pleopod 1-2 exopods with an indentation on the outer margin of the tracheal field. Pleopod 1 exopod with a short posterior point; endopod with thickset distal part, straight. Pleopod 2 as in Fig. 30G. Uropodal exopod trapezoidal, wider than long.

REMARKS

Armadillidium torchiai is morphologically very close to *A. littorale*, from which it differs in having the lateral margin of pereonite 1 less swollen, the shape of the telson and the male pleopod 1 exopod with a short posterior point.

DISCUSSION

With the data from the present analysis, seventy-six species of terrestrial isopods are known from Corsica, of which eight are described as new and twelve are newly recorded (marked with * in the following list):

1) *Tylos europaeus* Arcangeli, 1938
2) *Tylos ponticus* Grebnitzky, 1874
3) *Helleria brevicornis* Ebner, 1868
4) *Ligia italica* Fabricius, 1798
5) *Finaloniscus briani* Vandel, 1953
*6) *Finaloniscus franciscoloi* (Brian, 1951)
7) *Nesiotoniscus corsicus* Racovitza, 1908
8) *Nesiotoniscus racovitzai* Vandel, 1954
9) *Oritoniscus paganus* Racovitza, 1908
10) *Oritoniscus ocellatus* Vandel, 1953
*11) *Oritoniscus punctatus* n.sp.
12) *Trichoniscus pusillus provisorius* Racovitza, 1908
13) *Trichoniscus pygmaeus* Sars, 1899
14) *Trichoniscus fragilis* Racovitza, 1908
*15) *Trichoniscus halophilus* Vandel, 1951
16) *Trichoniscus pedronensis* Vandel, 1947
17) *Haplophthalmus danicus* Budde-Lund, 1885
18) *Cyrnoniscus remyi* Vandel, 1953
19) *Carloniscus dollfusi* (Carl, 1908)
20) *Buddelundiella cataractae* Verhoeff, 1930
21) *Buchnerillo litoralis* Verhoeff, 1942
22) *Stenoniscus pleonalis* Aubert & Dollfus, 1890
23) *Stenoniscus carinatus* Silvestri, 1897
24) *Armadilloniscus candidus* Budde-Lund, 1885
*25) *Armadilloniscus ellipticus* (Harger, 1878)
26) *Halophiloscia couchii* (Kinahan, 1858)
27) *Halophiloscia hirsuta* Verhoeff, 1928
*28) *Halophiloscia ischiana* Verhoeff, 1933
*29) *Halophiloscia tyrrhena* Verhoeff, 1928
*30) *Stenophiloscia zosterae* Verhoeff, 1928
31) *Chaetophiloscia elongata* (Dollfus, 1884)
32) *Chaetophiloscia sicula* Verhoeff, 1908
33) *Chaetophiloscia cellaria* (Dollfus, 1884)
*34) *Ctenoscia dorsalis* Verhoeff, 1928
35) *Ctenoscia minima* (Dollfus, 1892)
36) *Philoscia affinis* Verhoeff, 1908
37) *Tiroloscia corsica corsica* (Dollfus, 1888)
38) *Tiroloscia macchiae* Verhoeff, 1931
*39) *Tiroloscia montana* n.sp.
40) *Sardoniscus pygmaeus* (Budde-Lund, 1885)
41) *Platyarthrus costulatus* Verhoeff, 1908
*42) *Platyarthrus corsicus* n.sp.
43) *Platyarthrus caudatus* Aubert & Dollfus, 1890
*44) *Platyarthrus aiasensis* Legrand, 1953
45) *Platyarthrus schoeblii schoeblii* Budde-Lund, 1885
*46) *Platyarthrus hoffmannseggii* Brandt, 1833
47) *Cylisticus convexus* (De Geer, 1778)
48) *Cylisticus vandeli* Taiti & Ferrara, 1980
*49) *Cylisticus uncinatus* n.sp.
50) *Troglocylisticus cyrnensis* Ferrara & Taiti, 1983
51) *Protracheoniscus babori* Frankenberger, 1938
52) *Porcellionides pruinosus* (Brandt, 1833)
53) *Porcellionides sexfasciatus sexfasciatus* (Budde-Lund, 1885)
54) *Acaeroplastes melanurus sardous* Verhoeff, 1918
55) *Leptotrichus panzerii* (Audouin, 1826)
56) *Agabiformius lentus* (Budde-Lund, 1885)
57) *Lucasius pallidus* (Budde-Lund, 1885)
58) *Porcellio spatulatus* Costa, 1882
*59) *Porcellio scaber* Latreille, 1804
60) *Porcellio dilatatus dilatatus* Brandt, 1833
61) *Porcellio laevis* Latreille, 1804
62) *Porcellio orarum vizzavonensis* Verhoeff, 1928
63) *Porcellio lamellatus sphinx* Verhoeff, 1931
*64) *Alloschizidium campanellii* n.sp.
65) *Alloschizidium remyi* (Vandel, 1944)
*66) *Alloschizidium cottarellii* (Argano & Pesce, 1974)
67) *Armadillidium nasatum nasatum* Budde-Lund, 1885
*68) *Armadillidium nasatum sardoum* Arcangeli, 1950
69) *Armadillidium granulatum* Brandt, 1833
70) *Armadillidium sordidum* Dollfus, 1887
71) *Armadillidium assimile* Budde-Lund, 1885
*72) *Armadillidium lanzai* n.sp.
73) *Armadillidium vulgare* (Latreille, 1804)
74) *Armadillidium album* Dollfus, 1887
*75) *Armadillidium littorale* n.sp.
*76) *Armadillidium torchiai* n.sp.

According to their present distributions, the species can be grouped in the following categories:

1. Cosmopolitan species (5)

Porcellionides pruinosus, *Agabiformius lentus*, *Porcellio scaber*, *P. laevis* and *Armadillidium vulgare*. All the species are of Mediterranean origin, with the sole exception of *P. scaber*, of West-European origin and most probably introduced to Corsica.

2. European species (8)

Trichoniscus pusillus provisorius, *T. pygmaeus*, *Haplophthalmus danicus*, *Buddelundiella cataractae*, *Platyarthrus hoffmannseggii*, *Cylisticus convexus*, *Porcellio dilatatus dilatatus* and *Armadillidium nasatum nasatum*.

3. Mediterranean-Atlantic species (9)

Tylos europaeus, *T. ponticus*, *Ligia italica*, *Trichoniscus fragilis*, *Armadilloniscus ellipticus*, *Halophiloscia couchii*, *Stenophiloscia zosterae*, *Armadillidium granulatum* and *A. album*.

4. Holomediterranean species (2)

Chaetophiloscia elongata and *Leptotrichus panzerii*.

5. West-Mediterranean-Atlantic species (12)

Buchnerillo litoralis, *Stenoniscus pleonalis*, *S. carinatus*, *Armadilloniscus candidus*, *Ctenoscia dorsalis*, *C. minima*, *Platyarthrus costulatus*, *P. aiasensis*, *Porcellionides sexfasciatus sexfasciatus*, *Lucasius pallidus*, *Porcellio lamellatus sphinx* and *Armadillidium assimile*.

6. West-Mediterranean species (8)

Trichoniscus halophilus, *Halophiloscia hirsuta*, *H. ischiana*, *H. tyrrhena*, *Chaetophiloscia cellaria*, *Philoscia affinis*, *Platyarthrus caudatus* and *P. schoeblii schoeblii*.

7. North-Mediterranean species (2)

Chaetophiloscia sicula and *Protracheoniscus babori*.

8. Alpine species (1)

Carloniscus dollfusi.

9. Tyrrhenian species (29)

Helleria brevicornis, *Finaloniscus briani*, *F. franciscoloi*, *Nesiotoniscus corsicus*, *N. racovitzai*, *Oritoniscus paganus*, *O. ocellatus*, *O. punctatus*, *Trichoniscus pedronensis*, *Cyrnoniscus remyi*, *Tiroloscia corsica corsica*, *T. macchiae*, *T. montana*, *Sardoniscus pygmaeus*, *Platyarthrus corsicus*, *Cylisticus vandeli*, *C. uncinatus*, *Troglocylisticus cyrnensis*, *Acaeroplastes melanurus sardous*, *Porcellio spatulatus*, *P. orarum vizzavonensis*, *Alloschizidium campanellii*, *A. remyi*, *A. cottarellii*, *Armadillidium nasatum sardoum*, *A. sordidum*, *A. lanzai*, *A. littorale* and *A. torchiai*.

This last group of species can be further divided according to their distributions:

9a. Corsican endemic species (18)

Finaloniscus briani, *Nesiotoniscus corsicus*, *N. racovitzai*, *Oritoniscus paganus*, *O. ocellatus*, *O. punctatus*, *Trichoniscus pedronensis*, *Cyrnoniscus remyi*, *Tiroloscia montana*, *Platyarthrus corsicus*, *Cylisticus vandeli*, *C. uncinatus*, *Troglocylisticus cyrnensis*, *Alloschizidium campanellii*, *A. remyi*, *Armadillidium lanzai*, *A. littorale* and *A. torchiai*. Almost one quarter of the species

recorded from Corsica are exclusive to the island. However, the endemism is generally weak, as most of the species are closely related to taxa present in the surrounding area (Mediterranean France, the Pyrénées, the Tuscan Archipelago and Tuscan coastal hills, and Sardinia). Two monospecific genera (*Cyrnoniscus* and *Troglocylisticus*) appear to be exclusive to Corsica. They are very specialised endogean and/or cavernicolous taxa. The former is related to taxa present in the northern Mediterranean area, and the latter to the *nasutus*-group of the genus *Cylisticus* widely distributed in the Tyrrhenian area.

9b. Corsican-Sardinian endemic species (4)

Tiroloscia corsica corsica, *Porcellio orarum vizzavonensis*, *Alloschizidium cottarellii* and *Armadillidium nasatum sardoum*.

9c. North-Tyrrhenian species (5)

Helleria brevicornis, *Tiroloscia macchiae*, *Sardoniscus pygmaeus*, *Acaeroplastes melanurus sardous* and *Armadillidium sordidum*.

9d. Tyrrhenian (*sensu lato*) species (2)

Finaloniscus franciscoloi and *Porcellio spatulatus*.

About 60% of the species have wide distributions (groups 1 to 7), almost all of Mediterranean origin. Seventeen of these species are halophilic (species 1, 2, 4, 14, 15, 21-30, 63 and 74 on the list), and can be considered as real expansive species due to their great facility for dispersal. All are widespread along the coast of the Mediterranean Sea and some also occur on the Atlantic coasts of Africa as far south as the river Senegal.

The number of species with a Tyrrhenian distribution is particularly high (*ca* 38%) and this group is the most interesting from a zoogeographic point of view. In fact, it consists of endemic endogean, cavernicolous or montane taxa, with a low capacity for dispersal, which provide valuable information about the faunistic affinities of Corsica. Indeed a comparison of the oniscidean fauna of Corsica with that of the surrounding regions [Sardinia (ARGANO *et al.* 1995); Tuscan Archipelago and coastal hills (TAITI & FERRARA 1989a and unpublished data), Sicily and circum-Sicilian islands (CARUSO *et al.* 1987), mainland Italy (ARGANO *et al.* 1995), southern France (VANDEL 1960, 1962), Iberian Peninsula (SCHMÖLZER 1971) and North Africa (VANDEL 1955, 1958, 1959)] leads to the following considerations.

In Sardinia the presence of many significant species (Corsican-Sardinian and North-Tyrrhenian elements, vicarious taxa of the genera *Oritoniscus*, *Cylisticus* of the *nasutus*-group, and *Nesiotoniscus*) demonstrates the close faunistic relationship of this island with Corsica. Besides the presence of characteristic taxa, a low number of species of the genera *Porcellio* and *Armadillidium* in both Sardinia and Corsica must be stressed. Only five species of *Porcellio* are known from these islands, mainly widespread or cosmopolitan in distribution, with the exception of *P. orarum vizzavonensis* and *P. spatulatus*. The latter has probably been recently introduced to Corsica if we consider its limited distribution in the southern coastal area of the island. The genus *Armadillidium* is present in the two islands with ten species that are mainly widespread, except *A. sordidum* and the three new species; however the characteristic forms of the Italian

peninsula and Sicily are completely missing. It is important to note that in Italy this genus has very many species, with over sixty forms known at present. Thus, Corsica, like Sardinia, seems to have been excluded from the speciation phenomena and colonizations of these two genera which occurred in Italy. Besides the clear affinities between the two islands, some important differences must also be pointed out. In fact, several characteristic taxa of the Sardinian fauna are missing in Corsica, *i.e.* species of the genera *Scotoniscus* Racovitza, 1908, *Catalauniscus* Vandel, 1953, *Alpioniscus* Racovitza, 1908, *Cordioniscus* Graeve, 1914, *Trichophiloscia* Arcangeli, 1950, *Tritracheoniscus* Taiti & Manicastri, 1985, and the species *Armadillo officinalis* Duméril, 1816; on the contrary, not present in Sardinia are species of the genera *Cyrnoniscus*, *Carloniscus* and *Troglocylisticus*.

The Tuscan Archipelago and coastal hills have numerous species of great zoogeographic value in common with Corsica: the North-Tyrrhenian elements, *Finaloniscus franciscoloi*, *Armadillidium assimile*, and closely related species of the genera *Nesiotoniscus*, *Oritoniscus*, *Tiroloscia*, *Cylisticus* and *Alloschizidium*. Likewise, zoogeographically important species present in Sardinia but not in Corsica are also missing in this area.

As far as Sicily is concerned, there are no significant examples of faunistic affinities with Corsica, except for the species with a wide distribution, *Finaloniscus franciscoloi*, and a species of *Nesiotoniscus* (*N. helenae* Brisolese & Caruso, 1974), which, however, does not belong to the *corsicus*-group.

With regard to a comparison with mainland Italy, all the typical Italian Alpine-Apennine elements are missing in Corsica, *e.g.* species of the genera *Spelaeonethes* Verhoeff, 1932, *Androniscus* Verhoeff, 1908, *Alpioniscus*, *Haplophthalmus* and *Buddelundiella* (with the exception of *H. danicus* and *B. cataractae*, certainly introduced), *Orthometopon* Verhoeff, 1917, *Trachelipus* Budde-Lund, 1908, *Armadillidium* of the *depressum-*, *carniolense-*, *alassiense-*, *furcatum-* and *vulgare*-groups. Moreover, species of *Helleria*, *Oritoniscus*, *Nesiotoniscus* and *Alloschizidium* present in Corsica are absent along the Alpine and Apennine chains.

In southern France (Maures and Estérel massifs, and the Grasse region) there are several zoogeographically important species which are in common with or closely related to forms present in Corsica: *Helleria brevicornis*, *Porcellio orarum*, *Armadillidium sordidum*, species of *Oritoniscus*, *Nesiotoniscus*, *Tiroloscia* and *Cylisticus*.

Oritoniscus paganus, *O. ocellatus* and *O. punctatus* from Corsica show close relationships with species of the same genus from the Pyrénées, while the genus *Tiroloscia* is present in Corsica with *T. corsica corsica*, *T. macchiae* and *T. montana* and in the Pyrénées with *T. pyrenaica* (Dollfus, 1897).

Even though the terrestrial isopods from North Africa are poorly known, it is interesting to point out the presence there of species of the genera *Finaloniscus* (*F. berberensis*) and *Nesiotoniscus* (*N. delamarei* Vandel, 1954 and *N. sebaouensis* Vandel, 1955).

With regard to the distribution of the species within Corsica, ten species populate exclusively the north-eastern part of the island, *i.e.* the so-called "Alpine Corsica" (*Oritoniscus ocellatus*, *Trichoniscus pedronensis*, *Cyrnoniscus remyi*, *Ctenoscia dorsalis*, *C. minima*, *Tiroloscia macchiae*, *Cylisticus convexus*, *Troglocylisticus cyrnensis*, *Alloschizidium remyi* and *Armadillidium sordidum*), while twelve species occur only in the granitic part (*Nesiotoniscus corsicus*, *N. racovitzai*, *Oritoniscus punctatus*, *Tiroloscia montana*, *Platyarthrus corsicus*, *P. aiasensis*, *L. pallidus*,

TABLE 1. — Distribution of terrestrial isopods in circum-Corsican islands.

	Tylos ponticus	*Helleria brevicornis*	*Ligia italica*	*Stenoniscus carinatus*	*Halophiloscia hirsuta*	*Chaetophiloscia sicula*	*Chaetophiloscia cellaria*	*Platyarthrus costulatus*	*Porcellionides pruinosus*	*Acaeroplastes melanurus sardous*	*Porcellio spatulatus*	*Porcellio laevis*	*Porcellio oraruni vizzavonensis*	*Porcellio lamellatus sphinx*	*Armadillidium granulatum*	*Armadillidium lanzai*	*Armadillidium vulgare*
Ile de la Giraglia			●		●	●	●	●	●			●	●			●	
Ilot Terre													●	●			
Ilot Intermediaire					●									●			
Ilot Finocchiarola													●				
Ilot Fautea										●			●				
Ilot de la Roscana			●										●				
Ile de Pinarello													●		●	●	
Ile de Cornuta											●						
Rocher de Vacca											●		●				
Ile Pietricaggiosa			●	●	●			●			●		●				
Ilot du Torello								●									
Ilot Toro Grande					●			●			●		●			●	
Ilot Toro Piccolo			●								●		●			●	
Ilot La Folaca			●		●						●		●				
Rocher d'Acciaju Nord	●	●															
Ilot Porraggia Piccola											●						
Ilot Porraggia Grande											●						
Ilot Sperduto Grande			●							●							
Ilot Sperduto Piccolo			●		●												●
Rocher Sud de Ratino										●	●						
Ile Cavallo													●				
Ilot Luigi Giafferri													●			●	
Ilot Gian Pietro Gaffori													●				
Ilot Silene													●				
Ilot Cala di u Ghiuncu					●												●
Ile Lavezzi												●	●				●
Ile Saint Antoine											●						
Ilot Fazzuolo Piccolo											●						
Ilot Sud de la Tonnara										●							
Grand îlot des Bruzzi											●		●				
Ile Piana de Portigliolo													●	●			
Ile Mezzu Mare													●				
Ile de Cala d'Alga													●				
Ilot de Cala Maiora													●				
Ilot Guardiola													●				
Ilot Garganellu													●				
Ilot Palazzu													●				
Ilot Palazzinu													●				
Zeccu d'a Furmicula													●				
Ilot Porri													●				
Rochers d'Elpa Nera													●				
Ilot Nord de Morsetta													●				
Ile Spano										●							

P. spatulatus, *P. scaber*, *Alloschizidium campanellii*, *A. cottarellii* and *Armadillidium torchiai*). One species (*Armadillidium littorale*) has been collected only in the Miocenic molasse of Capo Pertusato, near Bonifacio, and three species are exclusive to montane areas above 1000 m altitude (*Trichoniscus pedronensis* in Monte San Petrone, *Tiroloscia montana* in the Haut-Asco area and *Armadillidium torchiai* in the Vizzavona forest).

As concerns the oniscidean fauna of the islands surrounding Corsica (LANZA & POGGESI 1986), seventeen species are presently known from forty-three islets (Table 1). However, we must point out that, except for the île de la Giraglia, the île Pietricaggiosa and the îlots Toro Grande and Toro Piccolo which have been thoroughly investigated, most of the data derive from occasional collectings. Most of the species are littoral or widespread eurytopic ones and occur also in Corsica, with the exception of *Porcellio spatulatus*, which populates only the southernmost islets and the southern coast of the main island, and *Armadillidium lanzai*, recorded from the île de la Giraglia in the North and the île de Pinarello, the îlots Toro Grande, Toro Piccolo, Luigi Giafferri (Lavezzi) and the coast near Fautea in the South.

Twenty-four species are presently known from Corsican caves, most of which must be considered subcavernicolous (RUFFO 1955), *i.e.* trogloxenous, which live near the cave entrances (twelve species: *Helleria brevicornis*, *Ligia italica*, *Stenoniscus pleonalis*, *Halophiloscia hirsuta*, *Ctenoscia minima*, *Philoscia affinis*, *Platyarthrus costulatus*, *Porcellionides pruinosus*, *P. sexfasciatus*, *Porcellio laevis*, *Armadillidium assimile* and *A. vulgare*) or subtroglophilic, which normally live in caves but do not show any peculiar adaptation to cave life (five species: *Trichoniscus fragilis*, *Chaetophiloscia cellaria*, *Cylisticus vandeli*, *Porcellio dilatatus dilatatus* and *Alloschizidium remyi*). The remaining seven species are eucavernicolous (RUFFO 1955), five of them being eutroglophilic (*Finaloniscus briani*, *Nesiotoniscus corsicus*, *Oritoniscus paganus*, *O. ocellatus* and *Oritoniscus* sp.) and two troglobitic (*Cyrnoniscus remyi* and *Troglocylisticus cyrnensis*). It is important to point out that all the eucavernicolous species are endemic to Corsica.

GENERAL CONCLUSIONS

In synthesis, with the present study of the terrestrial isopods from Corsica, the following conclusions can be drawn:

Seventy-six species are known from the island, including eight new species and twelve taxa recorded for the first time. This number of species is certainly conspicuous (for comparison, sixty-six species are recorded from Sardinia, seventy-two from the Tuscan Archipelago and about eighty from Sicily).

About half of the species are West-Mediterranean in distribution, the majority being strictly Tyrrhenian (38%).

Many endemic species are present (about 25% of the total), which demonstrates the importance of Corsica as a speciation area.

The oniscidean fauna of Corsica is closely related to that of the Tuscan Archipelago and, to a lesser extent, to that of Sardinia.

Some important faunistic affinities exist with southern France (massifs of Maures and Estérel, and the Grasse region) and the Pyrénées.

No species of southern origin (Sicilian or North African) has been collected in Corsica, which seems to exclude a zoogeographic relationship with those regions.

KEY TO SPECIES OF TERRESTRIAL ISOPODS FROM CORSICA

1. Able to roll up into a ball 2
— Unable to roll up into a ball 23
2. Epimera of pereonites 2-7 separated from tergites 3
— Epimera of pereonites fused with tergites 5
3. Pleonal tergites fused with each other ..... *Helleria brevicornis*
— Pleonal tergites separated 4
4. Ventral plates of pleonite 5 apically rounded ..... *Tylos europaeus*
— Ventral plates of pleonite 5 apically truncate ..... *Tylos ponticus*
5. Exoantennal rolling up ability 6
— Endoantennal rolling up ability 9
6. Eye absent; maxillular inner branch with 6-8 penicils ..... *Troglocylisticus cyrnensis*
— Eye present; maxillular inner branch with 2 penicils 7
7. Pigmented body; eye with 20-25 ommatidia ..... *Cylisticus convexus*
— Colourless body; eye reduced with maximum 10 ommatidia 8
8. Male pereopod 7 merus with a distinct triangular process ..... *Cylisticus uncinatus*
— Male pereopod 7 merus without any process ..... *Cylisticus vandeli*
9. Antennal flagellum of 3 articles not clearly distinct; uropodal exopod cylindrical ... 10
— Antennal flagellum of 2 distinct articles; uropodal exopod lamellar 11
10. Uropods not completely covered by the telson, clearly visible in dorsal view .... *Buddelundiella cataractae*
— Uropods completely covered by the telson, not visible in dorsal view .. *Buchnerillo litoralis*
11. Pereonite 1 with a notch (schisma) at the posterior corner 12
— Pereonite 1 without a notch at the posterior corner 14
12. Cephalic scutellum with no upper margin, fused with vertex .... *Alloschizidium cottarellii*
— Cephalic scutellum clearly separated from vertex 13
13. Dorsum covered with long piliform scale-spines ..... *Alloschizidium remyi*
— Dorsum with inconspicuous triangular scale-spines ..... *Alloschizidium campanellii*
14. Cephalon with postscutellar line and no frontal line 15
— Cephalon with both postscutellar and frontal lines 21
15. Telson triangular 16
— Telson trapezoidal 19
16. Posterior margin of pereonite 1 with a deep incision at the base of epimeron 17
— Posterior margin of pereonite 1 regularly concave, not incised .... *Armadillidium assimile*
17. Telson with pointed apex; male pereopod 7 ischium with distinct verrucae on sternal margin ..... *Armadillidium granulatum*
— Telson with rounded apex; male pereopod 7 ischium without verrucae on sternal margin. . 18

18. Dorsum smooth; cephalic scutellum protruding above vertex about as much as its width ..... *Armadillidium nasatum nasatum*
— Dorsum granulated; scutellum protruding above vertex about half as much as its width ..... *Armadillidium nasatum sardoum*
19. Male pereopod 7 ischium distinctly enlarged distally ..... *Armadillidium sordidum*
— Male pereopod 7 ischium not enlarged distally 20
20. Cephalic scutellum bent over vertex, not protruding; no fossette between scutellum and vertex ..... *Armadillidium vulgare*
— Cephalic scutellum straight, distinctly protruding above vertex; fossette between scutellum and vertex clearly visible ..... *Armadillidium lanzai*
21. Telson triangular with broadly rounded apex ..... *Armadillidium torchiai*
— Telson trapezoidal 22
22. Male pereopod 7 basis with a distinct conical process in the distal part *Armadillidium album*
— Male pereopod 7 basis without any process ..... *Armadillidium littorale*
23. Antennal flagellum consisting of indistinct articles, so that it appears as a single conicle article 24
— Antennal flagellum consisting of distinct articles 38
24. Pleonite 3 with 1 or 2 tubercles 25
— Pleonite 3 without tubercles 26
25. Pleonite 3 with a distinct median tubercle ..... *Cyrnoniscus remyi*
— Pleonite 3 with 2 median tubercles fused at the base ..... *Carloniscus dollfusi*
26. Pereonites with 6+6 longitudinal ridges ..... *Haplophthalmus danicus*
— Pereonites smooth, granulated or tuberculated, but with no longitudinal ridges 27
27. Male pereopod 7 merus with a distinct hook-like process 28
— Male pereopod 7 merus without any process 29
28. Male pleopod 1 exopod with a protruding lobe on outer margin . *Nesiotoniscus racovitzai*
— Male pleopod 1 exopod without any lobe on outer margin ..... *Nesiotoniscus corsicus*
29. Male pleopod 1 exopod with a long posterior spine 30
— Male pleopod 1 exopod without a posterior spine 32
30. Dorsum smooth 31
— Dorsum granulated ..... *Oritoniscus punctatus*
31. Eye absent; male pleopod 1 endopod longer than exopod ..... *Oritoniscus paganus*
— Eye consisting of a single ommatidium; male pleopod 1 endopod shorter than exopod ..... *Oritoniscus ocellatus*
32. Pereonites with 2 paramedian tubercles ..... *Finaloniscus briani*
— Pereonites with no tubercles 33
33. Male pleopod 2 exopod much longer than wide, as long as endopod *Finaloniscus franciscoloi*
— Male pleopod 2 exopod wider than long, much shorter than endopod 34
34. Eye consisting of 3 ommatidia 35
— Eye reduced, with 1 or 2 ommatidia ..... *Trichoniscus halophilus*
35. Male pleopod 1 endopod apically swollen ..... *Trichoniscus pedronensis*
— Male pleopod 1 endopod apically pointed 36
36. Antennal flagellum of 3 articles; body with few traces of pigment 37

— Antennal flagellum of 4-5 articles; body well pigmented *Trichoniscus pusillus provisorius*
37. Male pleopod 1 exopod with an incision and some setae on outer margin ..... *Trichoniscus pygmaeus*
— Male pleopod 1 exopod without incision and setae on outer margin . *Trichoniscus fragilis*
38. Antennal flagellum of more than 10 articles ..... *Ligia italica*
— Antennal flagellum of 2-4 articles 39
39. Antennal flagellum of 4 articles 40
— Antennal flagellum of 2 or 3 articles 41
40. Uropodal endopod reaching half of exopod ..... *Armadilloniscus candidus*
— Uropodal endopod protruding backwards compared with exopod *Armadilloniscus ellipticus*
41. Antennal flagellum of 3 articles 42
— Antennal flagellum of 2 articles 56
42. Male genital papilla distally bilobed 43
— Male genital papilla entire 47
43. Dorsum granulated 44
— Dorsum smooth 45
44. Male pleopod 1 endopod apically with a conspicuous spine directed outwards ..... *Halophiloscia tyrrhena*
— Male pleopod 1 endopod apically with a conspicuous transverse lobe and a triangular process ..... *Stenophiloscia zosterae*
45. Male pleopod 1 endopod apically with a conspicuous spine 46
— Male pleopod 1 endopod apically without any spine ..... *Halophiloscia ischiana*
46. Male pleopod 1 endopod apically with a spine on outer margin .... *Halophiloscia couchii*
— Male pleopod 1 endopod apically with a spine on inner margin .... *Halophiloscia hirsuta*
47. Cephalon with lateral lobes absent or weakly developed; pleon distinctly narrower than pereon 48
— Cephalon with prominent lateral lobes; body outline continuous ... *Sardoniscus pygmaeus*
48. Eye consisting of a single ommatidium 49
— Eye consisting of several ommatidia 50
49. Male pleopod 1 endopod with distal part bent outwards ..... *Ctenoscia minima*
— Male pleopod 1 endopod with distal part straight ..... *Ctenoscia dorsalis*
50. Frontal line absent 51
— Frontal line present 53
51. Telson rounded ..... *Chaetophiloscia cellaria*
— Telson triangular 52
52. Pereonal epimera with an inner dark and an outer pale stripe ... *Chaetophiloscia elongata*
— Pereonal epimera with an outer dark and an inner pale stripe ..... *Chaetophiloscia sicula*
53. Male pereopod 7 merus with a hook-like process on sternal margin ..... *Philoscia affinis*
— Male pereopod 7 merus with no distinct modifications 54
54. Cephalon with lateral lobes absent 55
— Cephalon with small but distinct lateral lobes ..... *Tiroloscia montana*
55. Male pleopod 1 exopod with outer margin indented and equipped with spines; length 10-13 mm ..... *Tiroloscia corsica corsica*

— Male pleopod 1 exopod with outer margin not indented and without spines; length 5-8 mm ..... *Tiroloscia macchiae*
56. Uropods entirely covered by the telson, not visible in dorsal view 57
— Uropods clearly visible in dorsal view 58
57. Dorsum with very feeble tubercles, distinctly pubescent ..... *Stenoniscus pleonalis*
— Dorsum with distinct tubercles, not pubescent ..... *Stenoniscus carinatus*
58. Body colourless; eye absent 59
— Body pigmented; eye present 64
59. Telson triangular, much shorter than uropodal protopod 60
— Telson with a long distal part, distinctly protruding compared to uropodal protopod . 62
60. Dorsum with longitudinal ridges 61
— Dorsum without ridges ..... *Platyarthrus hoffmannseggii*
61. Cephalon with median lobe rounded ..... *Platyarthrus schoeblii schoeblii*
— Cephalon with median lobe apically indented ..... *Platyarthrus aiasensis*
62. Dorsum with no ridges ..... *Platyarthrus caudatus*
— Dorsum with longitudinal ridges 63
63. Pereonite 7 with 3+3 feeble ridges ..... *Platyarthrus costulatus*
— Pereonite 7 with 2+2 prominent ridges ..... *Platyarthrus corsicus*
64. Pleopods 1-2 exopods with lungs 65
— Pleopods 1-5 exopods with lungs ..... *Protracheoniscus babori*
65. Pereonite 1 with posterior margin straight 66
— Pereonite 1 with posterior margin sinuous 70
66. Body bordered with long setae ..... *Leptotrichus panzerii*
— Body not bordered with long setae 67
67. Suprantennal line present, V-shaped 68
— Suprantennal line absent 69
68. Male pleopod 1 exopod wider than long with rounded distal part. .. *Porcellionides pruinosus*
— Male pleopod 1 exopod longer than wide with triangular distal part ..... *Porcellionides sexfasciatus sexfasciatus*
69. Tip of telson not surpassing uropodal protopod; male pleopod 1 exopod with acute apex ..... *Acaeroplastes melanurus sardous*
— Tip of telson distinctly surpassing uropodal protopod; male pleopod 1 exopod with truncate apex ..... *Agabiformius lentus*
70. Cephalic median lobe spatuliform, projecting well above vertex . *Porcellio lamellatus sphinx*
— Cephalic median lobe triangular or rounded 71
71. Tip of telson rounded or truncate 72
— Tip of telson pointed 73
72. Tip of telson rounded ..... *Porcellio dilatatus dilatatus*
— Tip of telson truncate ..... *Porcellio spatulatus*
73. Male pleopod 1 exopod with truncate or rounded apex 74
— Male pleopod 1 exopod with acute apex 75
74. Male pleopod 1 exopod with truncate apex ..... *Porcellio scaber*
— Male pleopod 1 exopod with rounded apex ..... *Porcellio orarum vizzavonensis*

75. Telson with a triangular distal part, much narrower than basal; eye with more than 20 ommatidia; length up to 20 mm ..... *Porcellio laevis*
— Telson triangular with slightly and regularly concave sides; eye with 10-12 ommatidia; length up to 8 mm ..... *Lucasius pallidus*

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REFERENCES

ARCANGELI A., 1914. — La collezione di Isopodi terrestri del R. Museo di Zoologia degli Invertebrati di Firenze. *Atti Soc. ital. Sci. nat.* **52**: 455-486.

— 1925. — Gli Isopodi terrestri della Sardegna. *Boll. Musei Zool. Anat. comp. R. Univ. Torino* **39**: 1-75, pls 4-5.

— 1939. — *Sardoniscus pusillus*. Nuovo genere e nuova specie di Isopodo terrestre di Sardegna. *Boll. Musei Zool. Anat. comp. R. Univ. Torino* **47**: 125-129, pls 1-2.

— 1947. — La posizione sistematica del genere *Helleria* Ebn. (Crostacei Isopodi terrestri). *Archo zool. ital.* **31**: 373-389.

— 1948. — Schizidiinae sottofamiglia di Armadillidiidae (Crostacei Isopodi Terrestri). *Boll. Ist. Mus. Zool. Univ. Torino* **1** (1943-1948): 213-272.

— 1950. — Gli Isopodi terrestri della Sardegna. 2a Edizione. *Boll. Ist. Mus. Zool. Univ. Torino* **2** (1949-1950): 77-191, pls I-VII.

— 1954a. — *Phalloniscus pygmaeus* (B.L.) è proprio un *Phalloniscus*? (Crostacei Isopodi terrestri). *Boll. Ist. Mus. Zool. Univ. Torino* **4** (1953-1954): 123-126.

— 1954b. — Revisione di alcune specie italiane del genere *Armadillidium* Br. (Crostacei Isopodi terrestri). *Boll. Ist. Mus. Zool. Univ. Torino* **4** (1953-1954): 135-165, pls I-XVI.

ARGANO R., FERRARA F., GUGLIELMO L., RIGGIO S. & RUFFO S., 1995. — Crustacea Malacostraca II (Tanaidacea, Isopoda, Amphipoda, Euphausiacea). *In* A. MINELLI, S. RUFFO & S. LA POSTA (eds). *Checklist delle specie della fauna italiana*, **30**, Calderini, Bologna, 52 p.

ARGANO R. & MANICASTRI C., 1990. — Il genere *Spelaeonethes* Verhoeff, 1932 in Sardegna (Crustacea, Oniscidea, Trichoniscidae). *Fragm. ent.* **22**: 1-10.

— 1991. — A preliminary report on Oniscidean fauna (Crustacea, Isopoda) from central Tyrrhenian islands: 3-8. *In* P. JUCHAULT & J. P. MOCQUARD (eds). *The Biology of terrestrial Isopods*. III. Proceedings of the Third International Symposium on the Biology of Terrestrial Isopods, Poitiers (France), July 10-12, 1990: VI + 221.

ARGANO R. & PESCE G. L., 1974. — Un Elumino mirmecofilo di Sardegna: *Typhloschizidium cottarellii* n.sp. (Isopoda, Oniscoidea, Armadillidiidae). *Fragm. ent.* **9**: 283-291.

AUDOUIN J. V., 1826. — Explication sommaire des planches de Crustacés de l'Égypte et de la Syrie, publiées par Jules-César Savigny, Membre de l'Institut, offrant un exposé des caractères naturels des genres, avec la distinction des espèces. *In* Description de l'Égypte, ou recueil des observations et des recherches qui ont été faites en Égypte pendant l'expédition de l'Armée française, publié par les ordres de sa Majesté l'Empereur Napoléon le Grand. *Histoire Naturelle* **1** (4^{e} partie) : 77-98.

BEAUCOURNU J. C., 1967. — Contribution à la connaissance de la biologie d'*Ixodes (Eschatocephalus) vespertilionis* Koch, 1844 et d'*Ixodes (Pomerantzevella) simplex* Neumann, 1906 (Acarina, Ixodoidea), parasites des Chiroptères. *Ann. Spéléol.* **22** : 543-580.

BERON P., 1972a. — Aperçu sur la faune cavernicole de la Corse. *Série documents, Laboratoire souterrain du C.N.R.S., Moulis* **3** : 1-55.

— 1972b. — Aperçu sur la faune cavernicole de la Corse. *Annls Spéléol.* **27** : 807-810.

BIGOT L., 1977. — Contribution à la connaissance des zoocoenoses ripicoles de surface en Corse. *Ecol. mediter.* **3** : 5-12.

BOLOGNA M. A. & VIGNA TAGLIANTI A., 1985. — *Res Ligusticae* CCXIV. Fauna cavernicola delle Alpi Liguri. *Annali Mus. civ. Stor. nat. Giacomo Doria* **84-bis** (1984): 1-388.

BRIAN A., 1951. — Descrizione di un nuovo genere di Trichoniscidae raccolto in una grotta ligure da Mario Franciscolo. *Boll. Soc. ent. ital.* **81**: 22-25.

— 1953. — Di alcuni Trichoniscidi nuovi della fauna endogea italiana (Isopodi terrestri). *Boll. Soc. ent. ital.* **83**: 26-35.

BUDDE-LUND G., 1885. — *Crustacea Isopoda terrestria per familias et genera et species descripta.* Hauniae, 320 p.

CARUSO D., 1976. — Isopodi terrestri dell'Isola di Pantelleria. *Animalia* **3**: 105-124.

CARUSO D., BAGLIERI C., DI MAIO M. C. & LOMBARDO B. M., 1987. — Isopodi terrestri di Sicilia ed isole circumsiciliane (Crustacea, Isopoda Oniscoidea). *Animalia* Suppl. **14**: 5-211.

CARUSO D. & LOMBARDO B. M., 1982. — Isopodi terrestri delle isole maltesi. *Animalia* **9**: 5-52.

CASSOLA F., 1982. — Il popolamento cavernicolo della Sardegna. *Lav. Soc. ital. biogeogr.*, (N.S.) **7** (1978): 615-755, pls I-III.

COBOLLI SBORDONI M., TAITI S., DE MATTHAEIS E. & KETMAIER V., 1995. — Genetic relationships among populations of the *Oritoniscus paganus* group (Crustacea, Isopoda, Oniscidea) from Corsica and Giannutri (Tuscan Archipelago). *Mém. Biospéol.* **22**: 13-16.

COLLINGE W. E., 1941. — Some remarks on the genus *Helleria* v. Ebner (Terrestrial Isopoda). *Ann. Mag. nat. Hist.* **8** (11): 522-526.

DALENS H., 1977. — Comportement constructeur chez l'Isopode *Nesiotoniscus corsicus* Racovitza. *Bull. Soc. Hist. nat. Toulouse* **113** : 181-182.

DOLLFUS A., 1887. — Catalogue provisoire des espèces françaises d'Isopodes terrestres. *Bull. Soc. étud. scient. Paris* **9** : 8-11.

— 1888. — Description d'une espèce nouvelle du genre *Philoscia*. *Bull. Soc. étud. scient. Paris* **11** : 10-11, 1 pl.

— 1892. — Tableaux synoptiques de la faune française. Le genre *Armadillidium* (Crustacés Isopodes terrestres). *Feuille jeun. Nat.* **22** : 15-19, 39-42, 135-141, 175-179.

— 1896. — Sur la distribution géographique des Armadilliens en Europe. *In* P. P. C. HOEK (ed.). *Compte-rendu des Séances du troisième Congrès international de Zoologie*, Leyde, E.J. Brill : 356-358.

— 1897. — Tableau iconographique des *Philoscia* d'Europe. Crustacés Isopodes terrestres. *Feuille jeun. Nat.* **27** : 70-74, 91-95.

— 1899. — Catalogue des Crustacés Isopodes terrestres (Cloportides) de France. *Feuille jeun. Nat.* **29** : 186-190, 207-208.

EBNER V. VON, 1868. — *Helleria*, eine neue Isopoden-Gattung aus der Familie der Oniscoiden. *Verh. zool.-bot. Ges. Wien* **18**: 95-114, pl. I.

FERRARA F. & TAITI S., 1878. — Gli Isopodi terrestri dell'Arcipelago toscano. Studio sistematico e biogeografico. *Redia* 61: 1-106.

— 1983. — *Troglocylisticus cyrnensis* n. gen. n.sp. di isopodo terrestre della Corsica (Cylisticidae). *Redia* **66**: 485-590.

— 1984. — *Oritoniscus beroni* nuova specie di isopodo terrestre della Sardegna (Trichoniscidae). *Redia* **67**: 417-420.

— 1985. — Su una nuova specie del genere *Cylisticus* Schnitzler, 1853, della Liguria orientale (Crustacea, Oniscidea). *Fragm. ent.* **18**: 33-37.

FRANKENBERGER Z., 1939. — Über eine neue Art der Gattung *Platyarthrus* Brdt. (Isopoda-Oniscoidea). *Ent. Listy* **2**: 115-117.

GARTHWAITE R. L., LAWSON R. & TAITI S., 1992. — Morphological and genetic relationships among four species of *Armadilloniscus* Uljanin, 1875 (Isopoda: Oniscidea: Scyphacidae). *J. nat. Hist.* **26**: 327-338.

GARTHWAITE R. L. & TAITI S., 1989. — *Platyarthrus aiasensis* Legrand (Isopoda: Oniscidea: Platyarthridae) in the Americas. *Bull. Sth. Calif. Acad. Sci.* **88**: 42-43.

GIORDANI SOIKA A., 1954. — Studi di ecologia e biogeografia – XII. Ecologia, sistematica, biogeografia ed evoluzione del *Tylos Latreillei* Auct. (Isop. Tylidae). *Boll. Mus. civ. Stor. nat. Venezia* **7**: 63-83, pls I-XI.

— 1972. — Nuove ricerche sul genere *Tylos* (Crust. Isop.). *Boll. Mus. civ. Stor. nat. Venezia* **22-23**: 193-210, pls I-VI.

JEANNEL R. & RACOVITZA E. G., 1908. — Biospéologica VI. Enumération des grottes visitées, 1906-1907 (2e Série). *Archs Zool. exp. gén.* **8** (4) : 327-414.

KUSSAKIN O. G., 1982. — Marine and salt water isopod crustaceans (Isopoda) of cold and temperate waters of the Northern Hemisphere. *Opred. Faune SSSR*, **131**: 1-456 [in Russian].

LANZA B., 1979. — Universo in miniatura attorno alla Corsica. *Geos, Milano* **1** (2): 34-51.

LANZA B. & POGGESI M., 1986. — Storia naturale delle isole satelliti della Corsica. *L'Universo, Firenze* **66** (1): 1-198.

MANICASTRI C. & TAITI S., 1994. — Gli Isopodi terrestri dell'Appennino umbro-marchigiano (Crustacea, Oniscidea). *Biogeographia* **17** (1993): 125-150.

PAOLETTI M. G. & STINNER B. R., 1988. — Two new terrestrial Isopoda (Oniscidea) from coralline cays of Venezuela's Caribbean coast. *Proc. ent. Soc. Wash.* **91** (1989): 71-80.

RACOVITZA E. G., 1908. — Biospéologica IX. Isopodes terrestres (Seconde Série). *Archs Zool. exp. gén.* **9** (4) : 239-415, pls IV-XXIII.

REMY P., 1950. — Grottes de Corse. *Annls Spéléol.* **5** : 3-47.

RUFFO S., 1955. — Le attuali conoscenze sulla fauna cavernicola della regione pugliese. *Memorie Biogeogr. adriat.* **3**: 1-143.

SCHARFF R. F., 1894. — Einige Bemerkungen über eine Reise in Corsica. *Ber. senckenb. naturf. Ges.*: 153-167.

SCHMALFUSS H., 1981. — Die Isopoden der Nördlichen Sporaden (Ägäis). *Stuttg. Beitr. Naturk.*, A **343**: 1-24.

— 1983. — Die Landisopoden (Oniscoidea) Griechenlands 4. Beitrag: Gattung *Protracheoniscus*, Teil I (Trachelipidae). *Stuttg. Beitr. Naturk.*, A **367**: 1-9.

— 1989. — Die Land-Isopoden (Oniscidea) Griechenlands. 10. Beitrag: Gattung *Trichodillidium* n.g. (Armadillidiidae). *Sber. ost. Akad. Wiss. (Mathem.-naturw. Kl., Abt. I)* **197**: 207-214.

— 1990. — Die Landisopoden (Oniscidea) Griechenlands. 11. Beitrag: Gattung *Chaetophiloscia* (Philosciidae). *Revue suisse Zool.* **97**: 169-193.

— 1991. — The terrestrial isopod genus *Chaetophiloscia* in western Asia (Oniscidea: Philosciidae). *Stuttg. Beitr. Naturk.*, A **463**: 1-9.

— 1992. — The terrestrial isopod genus *Porcellio* in western Asia (Oniscidea: Porcellionidae). *Stuttg. Beitr. Naturk.*, A **475**: 1-45.

SCHMÖLZER K., 1971. — Die Landisopoden der Iberischen Halbinsel. *Monogr. Cien. moder.* **80**: I-XI, 1-161, 10 maps.

SCHULTZ G. A., 1972. — Ecology and systematics of terrestrial isopod crustaceans from Bermuda (Oniscoidea). *Crustaceana* Suppl. **3**: 79-99.

— 1995. — Terrestrial isopod crustaceans (Oniscidea) from Paraguay with definition of a new family. *Revue suisse Zool.* **102**: 387-424.

SFENTHOURAKIS S., 1992. — New species of terrestrial isopods (Isopoda, Oniscidea) from Greece. *Crustaceana* **63**: 199-209.

— 1995. — New species of terrestrial isopods (Oniscidea) from central Aegean islands. *Stuttg. Beitr. Naturk.*, A **519**: 1-21.

TABACARU I., 1993. — Sur la classification des Trichoniscidae et la position systématique de *Thaumatoniscellus orghidani* Tabacaru, 1973 (Crustacea, Isopoda, Oniscidea). *Trav. Inst. Spéol. Emile Racovitza* **32** : 43-85.

TAITI S. & FERRARA F., 1980. — Nuovi studi sugli Isopodi terrestri dell'Arcipelago toscano. *Redia* **63**: 249-300.

— 1989a. — Biogeography and ecology of terrestrial isopods from Tuscany. *Monitore zool. ital.* (N.S.) Monogr. **4**: 75-101.

— 1989b. — New species and records of *Armadilloniscus* Uljanin, 1875 (Crustacea Isopoda Oniscidea) from the coasts of the Indian and Pacific oceans. *Trop. Zool.* **2**: 59-88.

— 1991. — New species and records of terrestrial isopods (Crustacea) from the Arabian Peninsula. *Fauna Saudi Arabia* **12**: 209-224.

— 1995a. — Su una nuova specie di *Nesiotoniscus* (Crustacea, Isopoda, Oniscidea) dell'Isola di Capraia (Arcipelago Toscano) con considerazioni sul genere. *Boll. Mus. reg. Sci. nat. Torino* **13**: 313-321.

— 1995b. — Isopodi terrestri (Crustacea, Oniscidea) delle grotte della Toscana (Italia centrale). *Mém. Biospéol.* **22**: 169-196.

TAITI S. & MANICASTRI C., 1980. — *Cylisticus aprutianus*, nuova specie di Isopode terrestre dell'Abruzzo (Crustacea, Oniscoidea). *Fragm. ent.* **15**: 253-257.

VANDEL A., 1944a. — Isopodes terrestres récoltés par M. Remy, au cours de son voyage en Corse (juillet-septembre 1942). I. – Description de *Paraschizidium remyi*, n.sp., suivie de considérations sur l'histoire et la répartition de la famille des Armadillidiidae. *Archs Zool. exp. gén.* (Notes et Revue) **83** : 83-98.

— 1944b. — Isopodes terrestres récoltés par M. Remy au cours de son voyage en Corse (juillet-septembre 1942). II. – La famille des Stenoniscidae B.-L. *Archs Zool. exp. gén.* (Notes et Revue) **84** : 23-47.

— 1945. — Isopodes terrestres récoltés par M. Remy, au cours de son voyage en Corse (juillet-septembre 1942). III. – La famille des Buddelundiellidae. *Archs Zool. exp. gén.* (Notes et Revue) **84** : 100-113.

— 1947. — Espèces françaises, nouvelles ou peu connues, de Trichoniscidae (Isopodes terrestres) (Troisième Partie). *Bull. Soc. zool. Fr.* **72**: 35-53.

— 1951. — Le genre "*Porcellio*" (Crustacés; Isopodes: Oniscoidea). Évolution et systématique. *Mém. Mus. natl Hist. nat.*, N. S., A **3** : 1-192.

— 1953a. — Isopodes terrestres récoltés dans les grottes de la Corse, par le Professeur P.-A. Remy, en 1942 et 1948. *Notes biospéol.* **8** : 153-166.

— 1953b. — Remarques systématiques, morphologiques et biogéographiques sur un groupe de Trichoniscidae Nord-Atlantiques. (Crustacés; Isopodes terrestres). *Bull. Mus. natl Hist. nat.*, Paris **25** : 368-375.

— 1954a. — Le peuplement isopodique de la Corse ; étude biogéographique. *Revue fr. Ent.* **21** : 72-84.

— 1954b. — Les Trichoniscides endogés et cavernicoles appartenant au genre *Nesiotoniscus* Racovitza (Crustacés ; Isopodes terrestres). *Notes biospél.* **9** : 149-156.

— 1954c. — Sur une espèce mal connue d'Isopode terrestre, *Phalloniscus pygmaeus* (B.-L.). (*Philoscia pygmaea* B.-L.). (Crustacé). *Bull. Mus. natl Hist. nat.*, Paris, **26** : 226-230.

— 1954d. — Note sur deux Armadillidiidae endogés et cavernicoles de la région de Grasse (Crustacés; Isopodes terrestres). *Notes biospél.* **9** : 49-60.

— 1955. — La faune isopodique cavernicole de l'Afrique du Nord (Berbérie). *Notes biospél.* **10** : 63-80.

— 1958. — Les Isopodes terrestres du Rif. *Tamuda* **6** : 127-134.

— 1959. — Les Styloniscidae et les Trichoniscidae de l'Afrique du Nord (Crustacés ; Isopodes terrestres). *Bull. Mus. natl Hist. nat.*, Paris **31** : 159-167.

— 1960. — Isopodes terrestres (Première Partie). *Faune Fr.* **64** : 1-416.

— 1962. — Isopodes terrestres (Deuxième Partie). *Faune Fr.* **66** : 417-931.

— 1968a. — Les Isopodes terrestres et cavernicoles de la Corse. *Annls Spéléol.* **23** : 355-362.

— 1968b. — *I. Isopodes terrestres. In* Mission Zoologique Belge aux îles Galapagos et en Ecuador (N. et J. Leleup. 1964-1965). Résultats Scientifiques. Première Partie. Vol. 1, Bruxelles, L'Imprimerie des Sciences : 37-168.

— 1977. — Les Oniscoïdes (Isopodes terrestres) de la Nouvelle-Zélande et de l'Archipel Kermadec. *Mém. Mus. natl Hist. nat.*, Paris, N.S., A **102** : 1-56.

VERHOEFF K. W., 1910. — Ueber Isopoden, 16. Aufsatz, *Armadillidium* und *Porcellio* an der Riviera. *Jh. Ver. vaterl. Naturk. Württ.*: 115-143.

— 1919. — Ueber augenlose Armadillidien und kritische Prüfung der Familie Armadillidiidae. 25. Isopoden-Aufsatz. *Arch. Naturgesch.*, A **83** (1917): 160-170.

— 1926. — *7. Isopoda. In* Beiträge zur Kenntnis der Land- und Süsswasserfauna Korsikas. I. Ergebnisse der Dr. Paul Schottländer-Lehrexpedition des Jahres 1914. Im Auftrag des Kuratoriums der Dr. P. Schottländer-Stiftung herausgegeben von W. Arndt, Berlin. *Mitt. zool. Mus. Berl.* **12** (2): 263.

— 1928. — Über alpenländische und italienische Isopoden. 37. Isopoden-Aufsatz. *Zool. Jb.* (*Syst.*) **56**: 93-172.

— 1931. — Über Isopoda terrestria aus Italien. 45. Isopoden-Aufsatz. *Zool. Jb.* (*Syst.*) **60**: 489-572, pls 6-8.

— 1933a. — Arthropoden aus südostalpinen Höhlen gesammelt von Karl Strasser, Triest. 7. Aufsatz. *Mitt. Höhl.- u. Karstforsch.*: 1-21.

— 1933b. — Zur Systematik, Geographie und Ökologie der Isopoda terrestria Italiens und über einige Balkan-Isopoden. 49. Isopoden-Aufsatz. *Zool. Jb.* (*Syst.*) **65**: 1-64, pls 1-2.

— 1943. — Cavernicole Diplopoden, Chilopoden und Land-Isopoden der Insel Capri, gesammelt von Dr. G. Buchner, Ischia. *Z. Karst- u. Höhlenk.*: 153-165.

VIGLIANISI F., LOMBARDO B. M. & CARUSO D., 1992. — Differenziamento genetico e morfologico in alcune specie siciliane di Isopodi terrestri del genere *Porcellio* e descrizione di tre nuove specie (Crustacea, Isopoda, Oniscoidea). *Animalia* **19**: 235-273.

WOLF B., 1934. — *Animalium Cavernarum Catalogus*. Pars 2. **3**: 65-144.