

RHABDITID SPECIES (NEMATODA, RHABDITIDA) RECORDED IN PENINSULAR SPAIN AND BALEARIC ISLANDS

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SUMMARY

Previous records of species belonging to the order Rhabditida in peninsular Spain and Balearic Islands is presented as compilation. Eighty species of forty genera and twelve families are listed. Information concerning each species contains scientific name, synonymy, distribution and remarks. Distributional data include localities and/or geographical areas where the species have been collected and the corresponding references. A short discussion on current knowledge on rhabditid nematodes in the Iberian geography is also made. Majority of species are defficiently known, being necessary additional taxonomic and/or faunistic studies of this taxon.

Keywords: Compilation, distribution, Iberian fauna, rhabditid nematodes, records.

RESUMEN

Especies de rhabdítidos (Nematoda: Rhabditida) citadas en España peninsular y las Islas Baleares

Se presenta una recopilación de citas previas de especies pertenecientes al orden Rhabditida en la España peninsular e Islas Baleares. Se listan ochenta especies de cuarenta géneros y doce familias. La información que concierne a cada especie contiene el nombre científico, sinonimia, distribución y observaciones. Los datos de distribución incluyen las localidades y/o áreas geográficas donde las especies han sido recolectadas, y las referencias correspondientes. También se realiza una breve discusión sobre el conocimiento de los nematodos rhabdítidos en el área ibérica, concluyéndose que la mayor parte de las especies se conocen deficientemente, siendo necesario un estudio taxonómico y/o faunístico adicional del taxon.

Palabras clave: Citas, distribución, fauna ibérica, nematodos rhabdítidos, recopilación.

Introduction

Members of the order Rhabditida are one of the most important taxa within the phylum Nematoda. They are very abundant and widely distributed in both soil and freshwater, where exploit different food resources: saprophagous and/or bacteriovorous (cephalobid species), predators (diplogasterid species), insect-parasites or entomopathogens (stei-

nernematid species) and even, if we take into account the new concept of the group by De Ley and Blaxter (in press), plant-parasites (tylenchs). Rhabditid nematodes are also a highly diversified group, currently including 142 genera (*cf.* De Ley *et al.*, 1998).

Relatively scarce information on rhabditid nematodes from Spain is available and no monographic study of the group has been previously

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carried out. However, a small and rather disperse volume of data is found in numerous contributions dealing with general nematode fauna, or in a few articles containing descriptions of previously known and/or new species. This paper, which is compiling the general chorological information (species, localities, references) of Spanish rhabditid species as first source of need information, is conceived as a starting point for a detailed taxonomic study of the group in Andalucía Oriental (southeastern Spain).

Previous remarks should be pointed out. (i) Only records from peninsular Spain and Balearic Islands have been compiled. (ii) Just the information appeared in papers, book articles or books has been taken into account, and not so those records found in abstracts of congress, Ph. D. Thesis, etc. (iii) Those records containing specific identifications of the taxa have been compiled, but not so others in which just generic identification of specimens is given. (iv) No taxonomic study of specimens has been undertaken for this contribution, and, as consequence, data and remarks provided are based on the available literature. (v) In general, the modern – although already classic – Andrassy's (1983, 1984) classification is followed for higher categories, but some more recent nomenclatorial changes have been also introduced, mainly at generic and specific levels. (vi) References to taxa authorities are omitted in the corresponding list, *i.e.*, only those papers referring to records and their remarks are presented.

Historical outline

Although the first records of rhabditid nematodes from Spain were made by Madrid-Moreno (1911), who cited *Anguillulina stercorarius* in two different habitats (a garden from Madrid city and plancton from Lozoya River), and Muñoz-Medina (1945) who found *Rhabditis aspera* in Sierra Nevada mountains (province of Granada), the pioneer of nematological studies in Spain and the first author providing morphological and chorological information of rhabditid species was Enrique Gadea Buissan. In his Ph. D. Thesis (1952), Gadea described and recorded eleven species, and in his numerous subsequent papers he would add new species and records to the Spanish nematode fauna. In the sixties, Jiménez-Millán and collaborators (see, for instance, Arias *et al.*, 1963; Jiménez-Millán *et al.*, 1965) reported additional records, even describing the new genus *Chitinotylenchoides* Arias &

Jiménez-Millán, 1968 which is later on considered a junior synonym of *Tylopharynx* De Man, 1876. Jiménez-Guirado (1974, 1976) and Palomo (1979) made new contributions in the seventies. In the 80s and 90s, Hernández *et al.* (1988), Hernández and Jordana (1990) and De Ley *et al.* (1994) recorded and described several rhabditid species, mainly cephalobids. Ocaña and Picazo (1991) carried out an interesting contribution to our knowledge of the species inhabiting freshwater in Sierra Nevada mountains. Finally, Navarro and Lluch (1999) have described a new species belonging to the genus *Paracrobeles* Heyns, 1968 from eastern Spain.

Commented compendium of previous records of rhabditid nematode species from peninsular Spain and Balearic Islands

The available information on the presence of rhabditid nematodes in Spain is compiled below. Species are alphabetically ordered according to their specific epithet. Data of each species contains four sections: scientific name, synonymy, distribution and remarks. Information concerning distribution includes the name of the localities where the species was found, the province of these localities (locality/province) and the respective reference. Appendix I shows the taxonomic position of the species, and Appendix II offers an alphabetical list of the species ordered by their generic names.

aspera, *Rhabditis* Bütschli, 1873

REMARKS: See under its senior synonym *R. terricola* Dujardin, 1845.

axei, *Rhabditis* (Cobbold, 1884) Dougherty, 1955

SYNONYMY: *Pelodera axei* Cobbold, 1884; *Rhabditella axei* (Cobbold, 1884) Chitwood, 1933.

DISTRIBUTION: Quinto Real/Navarra (Monreal & Campoy, 1982).

REMARKS: Monreal and Campoy (1982) provided measurements and illustrations of the material collected in Navarra. Andrassy (1984) considered this taxon as *incertae sedis*.

bernensis, *Paroigolaimella* (Steiner, 1914) Andrassy, 1958

SYNONYMY: *Diplogaster bernensis* Steiner, 1914; *Diplogaster (Paradiplogaster) bernensis* Steiner, 1914 (Hirschmann, 1952); *Diplogaster (Paroigolaimella) bernensis* Steiner, 1914 (Weintgärtner, 1955).

DISTRIBUTION: Sierra Nevada /Granada (Ocaña & Picazo, 1991; Picazo *et al.*, 1988).

REMARKS: No additional information about this species is available.

bisimilis, *Heterocephalobus* (Thorne, 1925) Andrásy, 1967

SYNONYMY: *Acrobeles (Acrobeles) bisimilis* Thorne, 1925; *Eucephalobus bisimilis* (Thorne, 1925) Thorne, 1937; *Chiloplacus bisimilis* (Thorne, 1925) Goodey, 1963; *Acrobeloides karakalpakensis* Karimova, 1957.

DISTRIBUTION: Sierra Nevada/Granada (Ocaña and Picazo, 1991; Picazo *et al.*, 1988); Beunza and Sansoain/Navarra (Hernández *et al.*, 1988; Hernández & Jordana, 1990 & 1992).

REMARKS: No additional information about this species is available.

buetschlii, *Acrobeloides* (De Man, 1884) Steiner *et* Buhner, 1933

SYNONYMY: *Cephalobus buetschlii* De Man, 1884; *Cephalobus (Acrobeles) buetschlii* De Man, 1884 (De Man, 1921); *Acrobeles (Acrobeloides) buetschlii* (De Man, 1884) Thorne, 1925; *Cephalobus persegnis buetschlii* De Man, 1884 (Micoletzky, 1922); *Acrobeloides recurvatus* Goodey, 1963.

DISTRIBUTION: Peña Redonda/León (Gadea, 1953b); Tagomago Island/Baleares (Gadea, 1954); Canfranc/Huesca (Gadea, 1956); Pitiusas Islands/Baleares (Gadea, 1969); Sierra de Gata/Salamanca (Palomo, 1979); Catalanian Central Pyrenean (Gadea, 1982); Quinto Real/Navarra (Monreal & Campoy, 1982); Peñas de Echauri/Navarra (Mateo & Campoy, 1983); Bardenas/Navarra (Jordana *et al.*, 1987); Beunza, Sansoain and Unzué/Navarra (Hernández *et al.*, 1988; Hernández & Jordana, 1990 & 1992); Sierra of Grazalema/Cádiz (Santos Lobatón, 1991); Sierra Morena/Sevilla (Santos-Lobatón, 1992).

REMARKS: Monreal and Campoy (1982) and Mateo and Campoy (1983) provided measurements and/or illustrations of the material collected in Navarra.

carinata, *Oligolaimella* Zullini, 1981

DISTRIBUTION: Sierra Nevada/Granada (Picazo *et al.*, 1988; Ocaña & Picazo, 1991).

REMARKS: No additional information about this species is available.

cervus, *Cervidellus* (Thorne, 1925) Thorne, 1937

SYNONYMY: *Acrobeles cervus* Thorne, 1925

DISTRIBUTION: Sierra de Gata/Salamanca (Palomo, 1979).

REMARKS: No additional information about this species is available.

ciliatus, *Acrobeles* von Linstow, 1877

SYNONYMY: *Cephalobus ciliatus* (von Linstow, 1877) De Man, 1880; *Cephalobus (Acrobeles) ciliatus* De Man, 1880 (Micoletzky, 1922); *Acrobeles sinensis* Kreis, 1930; *Acrobeles maeneenus* Yeates, 1967.

DISTRIBUTION: San Juan de la Peña/Huesca (Gadea, 1956); Sierras de Béjar and Gata/Salamanca (Palomo, 1979); Catalanian Central Pyrenean (Gadea, 1982); Añorbe and Ezprogui/Navarra (Armendáriz *et al.*, 1996).

REMARKS: No additional information about this species is available.

complexus, *Acrobeles* Thorne, 1925

SYNONYMY: *Seleborca complexa* (Thorne, 1925) Andrásy, 1985; *Acrobeles crossotus* Steiner, 1929.

DISTRIBUTION: Sierra Nevada/Granada (Jiménez-Guirado, 1976); Beunza/Navarra (Hernández & Jordana, 1992).

REMARKS: Hernández and Jordana (1992) recorded *A. crossotus*, a junior synonym of *A. complexus*.

coomansi, *Drilocephalobus* Ali, Suryawanshi *et* Chisty, 1973

DISTRIBUTION: Añorbe and Ezprogui/Navarra (Armendáriz *et al.*, 1996)

REMARKS: No additional information about this species is available.

cornis, *Eucephalobus* (Thorne, 1925) Andrásy, 1967

SYNONYMY: *Acrobeloides cornis* Thorne, 1925; *Cephalobus cornis* (Thorne, 1925) Thorne, 1937; *Chiloplacus cornis* (Thorne, 1925) Goodey, 1963.

DISTRIBUTION: Sierra Nevada/Granada (Picazo *et al.*, 1988; Ocaña & Picazo, 1991).

REMARKS: No additional information about this species is available.

coronatus, *Diploscapter* (Cobb, 1893) Cobb, 1913

SYNONYMY: *Rhabditis coronata* Cobb, 1893; *Rhabditis bicornis* Zimmermann, 1898; *Diploscapter bicornis* (Zimmermann, 1898) Goodey, 1963; *Rhabditis cephaloboides* Stefanski, 1922; *Acrobeles armatus* Kreis, 1929.

DISTRIBUTION: Sierra Nevada/Granada (Picazo *et al.*, 1988; Ocaña & Picazo, 1991; Ocaña, 1992).

REMARKS: No additional information about this species is available.

***costatus*, *Teratocephalus* Andrassy, 1958**

SYNONYMY: *Teratocephalus decarinus* Anderson, 1969.

DISTRIBUTION: Beunza and Unzué/Navarra (Hernández *et al.*, 1988; Hernández & Jordana, 1988, 1990 & 1992); Sansoain/Navarra (Hernández *et al.*, 1988); Beorburu, Ezprogui and Leoz/Navarra (Armendáriz *et al.*, 1996).

REMARKS: Hernández and Jordana (1988) provided good description and illustrations of Spanish specimens found in the North of the country. Armendáriz *et al.* (1996) recorded this species as *T. decarinus*, a junior synonym of *T. costatus*.

***crassidens*, *Metateratocephalus* (De Man, 1880) Eroshenko, 1973**

SYNONYMY: *Teratocephalus crassidens* De Man, 1880; *Euteratocephalus crassidens* (De Man, 1880) Andrassy, 1958; *Teratocephalus spiralis* Micoletzky, 1913; *Metateratocephalus typicus* Eroshenko, 1973; *Euteratocephalus minor* Mukhina, 1981.

DISTRIBUTION: Santa Fe de Montseny/Barcelona, Mendaca-Elorrio/Vizcaya, Picos de Europa/Asturias (Gadea, 1952a); Benaoján and Sierra de las Nieves/Málaga (Gadea, 1953a); Picos de Europa and Tama/Asturias (Gadea, 1953b); Sierra de Guadarrama/Madrid (Gadea, 1953c); Engors/Gerona (Gadea, 1956); Alayor and Tomago Island/Baleares (Gadea, 1962a); Medas Islands (Gadea, 1964a); Santa Eulalia del Río/Ibiza-Baleares (Gadea, 1964b); Menorca/Baleares, Pitiusas Islands/Baleares (Gadea, 1969); Quinto Real/Navarra (Monreal & Campoy, 1982); Montes Alberes/Gerona (Gadea, 1983); Beunza/Navarra (Hernández & Jordana, 1992); Beorburu/Navarra (Armendáriz *et al.*, 1996).

REMARKS: *M. crassidens* is a widely distributed species around the world. Some doubt persists on the identity of the material described by Gadea (1952) due to its measurements are out of the usual ranges of the species ($L=0.84$ vs $L=0.3-0.5$ mm; $V=44$ vs $V=53-60$; $c=11.3$ vs $c=7-10$). However, other specimens studied by Gadea (1953a) fit well with the available information of the species. Monreal and Campoy (1982) provided measurements and illustrations of the material collected in Navarra.

***crossotus*, *Acrobeles* Steiner, 1929**

REMARKS: See under *A. complexus*, its senior synonym.

***curvicaudata*, *Cephaloboides* (Schneider, 1866) Zullini, 1982**

SYNONYMY: *Leptodera curvicaudata* Schneider, 1866; *Rhabditis curvicaudata* (Schneider, 1866) von Linstow, 1878;

Rhabditis (Choriorhabditis) curvicaudata (Schneider, 1866) von Linstow, 1878 (Osche, 1952); *Rhabditis (Curviditis) curvicaudata* (Schneider, 1866) von Linstow, 1878 (Dougherty, 1953); *Rhabditis (Cephaloboides) curvicaudata* (Schneider, 1866) von Linstow, 1878 (Dougherty, 1955); *Rhabditis micoletzkyi* Schneider, 1923; *Rhabditis insulana* Ditlevsen, 1928; *Rhabditis armata* Fuchs, 1931; *Rhabditis (Choriorhabditis) armata* Fuchs, 1931 (Osche, 1952); *Rhabditis (Cephaloboides) armata* Fuchs, 1931 (Dougherty, 1955); *Curviditis curvicaudata* (Schneider, 1866) Andrassy, 1983.

DISTRIBUTION: Sierra Nevada/Granada (Picazo *et al.*, 1988; Ocaña & Picazo, 1991).

REMARKS: No additional information about this species is available.

***dadayi*, *Teratocephalus* Andrassy, 1968**

SYNONYMY: *Teratocephalus subvexus* Anderson, 1969; *Teratocephalus sigillarius* Eroshenko, 1973.

DISTRIBUTION: Beunza/Navarra (Hernández & Jordana, 1988 & 1992); Unzué/Navarra (Hernández *et al.*, 1988; Hernández & Jordana, 1990 & 1992).

REMARKS: Hernández *et al.* (1988) and Hernández and Jordana (1990) recorded *T. dadayi* and *T. subvexus* from Navarra, but these species are synonymous. Hernández and Jordana (1988) provided good description and illustrations of Spanish specimens found in the North of the country.

***decarinus*, *Teratocephalus* Anderson, 1969**

REMARKS: See under *T. costatus*, its senior synonym.

***devimucronata*, *Stegelletina* (Sumenkova, 1964) Boström & De Ley, 1996**

SYNONYMY: *Cervidellus devimucronatus* Sumenkova, 1964; *Ypsylonellus devimucronatus* (Sumenkova, 1964) Andrassy, 1984.

DISTRIBUTION: Sierra Nevada/Granada (Picazo *et al.*, 1988; Ocaña & Picazo, 1991); Puerto del Pinar/Granada (De Ley *et al.*, 1994).

REMARKS: De Ley *et al.* (1994) described in detail one female collected from an oak forest, and identified it as *Ypsylonellus cf. devimucronatus* due to doubts about the exact diagnosis of the species.

***elaboratus*, *Acrobeles* Thorne, 1925**

DISTRIBUTION: El Arahal/Sevilla (Arias *et al.*, 1963); El Arahal and Marchena/Sevilla, and Madrid/ Madrid (Jiménez-Millán *et al.*, 1965).

REMARKS: Unfortunately no description nor illustration of the species were given by the authors who recorded it, and no posterior finding is known.

The presence of *A. elaboratus* in the Iberian Peninsula should be confirmed.

***elongata*, *Rhabditis* Schneider, 1866**

REMARKS: See under *Rhabditella pseudoelongata*, its senior synonym.

***elongatus*, *Heterocephalobus* (De Man, 1880) Andrásy, 1967**

SYNONYMY: *Cephalobus elongatus* De Man, 1880; *Cephalobus* (*Eucephalobus*) *elongatus* De Man, 1880 (Schneider, 1939); *Eucephalobus elongatus* (De Man, 1880) Thorne, 1937; *Cephalobus mylakolaimus* Fuchs, 1930; *Eucephalobus mylakolaimus* (Fuchs, 1930) Thorne, 1937; *Cephalobus* (*Heterocephalobus*) *kaczanowskii* Brzeski, 1960; *Heterocephalobus kaczanowskii* (Brzeski, 1960) Brzeski, 1961; *Cephalobus multincinctus* Cobb, 1983; *Eucephalobus multincinctus* (Cobb, 1893) Thorne, 1937; *Heterocephalobus multincinctus* (Cobb, 1983) Andrásy, 1967; *Cephalobus bipapillatus* Stefanski, 1915; *Eucephalobus bipapillatus* (Stefanski, 1915) Thorne, 1937; *Heterocephalobus bipapillatus* (Stefanski, 1915) Andrásy, 1967.

DISTRIBUTION: Barcelona, Manresa and Monserrat/Barcelona, Engors, La Molina, Olot and San Miguel/Gerona, Monte Larrobe/Vizcaya, Panticosa/Huesca, Picos de Europa/Asturias, Deva River/Cantabria, and Sierra de Aralar/Navarra (Gadea, 1952a); Navas de San Luis/Málaga (Gadea, 1953a); Mampodre and Riaño/León, and Picos de Europa/Asturias (Gadea, 1953b); Sierra de Guadarrama (Gadea, 1953c); Panticosa and Turbón/Huesca and Engors/Gerona (Gadea, 1956); San Luis/Menorca-Baleares (Gadea, 1962a); Medas Islands (Gadea, 1964a); Santa Eulalia del Río/Ibiza-Baleares and Tagomago Island/Baleares (Gadea, 1964b); Menorca/Baleares, Pitiusas Islands/Baleares (Gadea, 1969); Sierra de Béjar/Salamanca (Palomo, 1979); Catalanian Central Pyrenean (Gadea, 1982); Quinto Real/Navarra (Monreal & Campoy, 1982); Peñas de Echaury/Navarra (Mateo & Campoy, 1983); Montes Alberes/Gerona (Gadea, 1983); Beunza and Unzué/Navarra (Hernández *et al.*, 1988; Hernández & Jordana, 1990 & 1992); Sansoain/Navarra (Jordana *et al.*, 1987; Hernández *et al.*, 1988; Hernández & Jordana, 1990 & 1992); Añorbe, Beorburu and Ezprogui/Navarra (Armendáriz *et al.*, 1996).

REMARKS: This is a cosmopolitan species, found mainly in terrestrial habitats, and apparently widely distributed in the Iberian Peninsula and Balearic Islands. Nevertheless, measurements of various Spanish specimens studied by Gadea (1952a, 1953a) differ from the usual range of the species:

longer ($L=1.21$ vs $L=0.6-0.9$ mm) and more obese body ($a=17, 18.5$ vs $a=25-33$) and more anterior vulva ($V=48$ vs $V=57-65$); then, some doubt persists on the precise identity of this material. Anyway, very recent records of the species seem to confirm that it is a member of the Spanish fauna. Monreal and Campoy (1982) and Mateo and Campoy (1983) provided measurements and/or illustrations of the material collected in Navarra.

***emarginatus*, *Acrolobus* (De Man, 1880) Boström, 1985**

SYNONYMY: *Cephalobus emarginatus* de Man, 1880; *Acrobeloides emarginatus* (De Man, 1880) Thorne, 1937; *Acrobelus* (*Acrobeloides*) *emarginatus* (De Man, 1880) Schneider, 1939; *Panagrobelus emarginatus* (De Man, 1880) Andrásy, 1984.

DISTRIBUTION: Montseny/Barcelona, Sierra de Guadarrama/Madrid, Deva River/Cantabria, Picos de Europa and Orzales/Cantabria, Puigmal Summit/Gerona, Malniu, Maranges and Ribas de Freser/Gerona, and Mendaca-Elorrio/Vizcaya (Gadea, 1952a), Benaoján/Málaga (Gadea, 1953a), Mampodre/León and Picos de Europa/Asturias (Gadea, 1953b), Sierra de Guadarrama/Madrid (Gadea, 1953c), Porriño/Pontevedra (Gadea, 1955b); Panticosa/Huesca and Maranges and Engors/Gerona (Gadea, 1956); Fornells/Menorca-Baleares (Gadea, 1962a) Estany Llebreta/Lérida (Gadea, 1962b); Tagomago Island/Baleares (Gadea, 1964b); Montejo de la Sierra/Madrid (Jiménez-Millán *et al.*, 1965); Menorca/Baleares (Gadea, 1969); Montes Cántabros (Gadea, 1979); Catalanian Central Pyrenean (Gadea, 1982).

REMARKS: *A. emarginatus* is a problematic species (*cf.* Andrásy, 1984: 232). Gadea (1952a) recorded and described it, but either his measurements were wrong (excessively long body, $L=2.4$ vs $L=0.6$; and quite long tail, $c=7.4$ vs $c=14$), or the identification was erroneous; other records by Gadea (1953a) agree well in its measurements with the available information of the species. Jiménez-Millán *et al.* (1965) recorded *Acrobeloides marginatus*, certainly a typographical error, but no additional information was supplied by these authors.

***facetus*, *Panagrolaimus* (Massey, 1971) Andrásy, 1984**

SYNONYMY: *Panagromacra faceta* Massey, 1971

DISTRIBUTION: Sierra Nevada/Granada (Picazo *et al.*, 1988; Ocaña & Picazo, 1991).

REMARKS: No additional information about this species is available.

fictor, Fictor (Bastian, 1865) Paramonov, 1952

SYNONYMY: *Diplogaster fictor* Bastian, 1865; *Diplogaster (Eudiplogaster) fictor* (Bastian, 1865) Meyl, 1961; *Mononchoides fictor* (Bastian, 1865) Meyl, 1961; *Eudiplogaster fictor* (Bastian, 1865) Meyl, 1961; *Koerneria fictor* (Bastian, 1865) Zullini, 1974; *Diplogaster fluviatilis* De Man, 1880; *Diplogaster elpatiewski* Daday, 1906; *Fictor elpatiewski* (Daday, 1906) Paramonov, 1952; *Diplogaster rosowskyi* Stefanski, 1915; *Fictor rosowski* (Stefanski, 1915) Paramonov, 1952; *Butlerius brevispiculatus* Schuurmans-Stekhoven & Teunissen, 1938; *Diplogaster brevispiculata* (Schuurmans-Stekhoven & Teunissen, 1938) Lordello & Zamith, 1959.

DISTRIBUTION: Noguera River/Lérida and Salitja/Gerona (Gadea, 1952); Bohí/Lérida (Gadea, 1956); Catalanian Central Pyrenean (Gadea, 1982).

REMARKS: No additional information about this species is available. Ebsary (1986) considered this taxon as *species inquirenda*.

filiformis, Protorhabditis (Bütschli, 1873) Sudhaus, 1976

SYNONYMY: *Rhabditis filiformis* Bütschli, 1873; *Rhabditis (Choriorhabditis) filiformis* Bütschli, 1873 (Osche, 1952); *Rhabditis agilis* von Linstow, 1876; *Protorhabditis lengerkeni* Paetzold, 1958.

DISTRIBUTION: Manresa and Rajadell/Barcelona, and Ribas de Fresser/Gerona (Gadea, 1952a); Maranges/Gerona (Gadea, 1956); Binillautí/Menorca-Baleares (Gadea, 1962a); Carrión River/Palencia (Gadea, 1963); Santa Eulalia del Río/Ibiza-Baleares (Gadea, 1964b); Pitiusas Islands/Baleares (Gadea, 1969); Sierras de Béjar and Gata / Salamanca (Palomo, 1979); Sierra Nevada/Granada (Ocaña, 1992).

REMARKS: Material described by Gadea (1952a) has a quite long body compared with the usual range of the species ($L=1.2$ vs $L=0.45-0.60$ mm), and other authors did not supply additional information of the species. Therefore, revision of this material and new collection of specimens are needed to confirm the presence of *P. filiformis* in the country.

foetida, Tylopharynx (Bütschli, 1874) Goffart, 1930

SYNONYMY: *Aphelenchus foetidus* Bütschli, 1874; *Aphelenchus (Paraphelenchus) foetidus* Bütschli, 1874 (Micoletzky, 1922); *Tylopharynx striata* De Man, 1876; *Neodiplogaster cryptolaimus* Paramonov, 1951; *Chitinotylenchoides mediterraneensis* Arias & Jiménez-Millán, 1968.

DISTRIBUTION: Alcanar/Tarragona and Cocentaina/Alicante (Arias & Jiménez-Millán, 1968 & 1973; Bello *et al.*, 1973).

REMARKS: Arias and Jiménez-Millán (1968) described *Chitinotylenchoides mediterraneensis*, a

junior synonym of this species, and later (1973) provided a good description of the species, including illustrations and measurements.

goffarti, Rhodolaimus (Sachs, 1949) Andrassy, 1971

SYNONYMY: *Bunonema (Stammeria) goffarti* Sachs, 1949; *Bunonema (Rhodolaimus) goffarti* Sachs, 1949 (Ruhm, 1962); *Stammeria goffarti* (Sachs, 1949) Andrassy, 1958.

DISTRIBUTION: Quinto Real/Navarra (Monreal & Campoy, 1982).

REMARKS: Monreal and Campoy (1982) provided measurements and illustrations of the material collected in Navarra.

graciloides, Metadiplogaster (Skwarra, 1921) Andrassy, 1984

SYNONYMY: *Diplogaster graciloides* Skwarra, 1921; *Diplogastrellus graciloides* (Skwarra, 1921) Paramonov, 1952; *Diplogaster inaequidens* Paesler, 1946; *Diplogaster (Metadiplogaster) inaequidens* Paesler, 1946 (Hirschmann, 1952); *Diplogaster (Diplogastrellus) inaequidens* Paesler, 1946 (Weintgärtner, 1955); *Diplogastrellus inaequidens* (Paesler, 1946) Paramonov, 1952; *Metadiplogaster inaequidens* (Paesler, 1946) Meyl, 1961.

DISTRIBUTION: Manresa/Barcelona and Sardón de Duero/Valladolid (Gadea, 1952a).

REMARKS: This species was recorded by Gadea (1952a) as *M. inaequidens*, a junior synonym of the taxon.

hygrophilus, Panagrolaimus Bassen, 1940

DISTRIBUTION: Sierra Nevada/Granada (Picazo *et al.*, 1988; Ocaña & Picazo, 1991; Ocaña, 1992).

REMARKS: No additional information about this species is available.

inaequidens, Metadiplogaster (Paesler, 1946) Meyl, 1961

REMARKS: See under *Metadiplogaster graciloides*, the senior synonym of the species.

inermis, Rhabditoides (Schneider, 1866) Dougherty, 1955

SYNONYMY: *Leptodera inermis* Schneider, 1866; *Rhabditis inermis* (Schneider, 1866) von Linstow, 1878; *Rhabditis (Telorhabditis) inermis* (Schneider, 1866) von Linstow, 1876 (Osche, 1952); *Rhabditis (Rhabditoides) inermis* (Schneider, 1866) von Linstow, 1876 (Sudhaus, 1876); *Rhabditis faecalis* Watanabe, 1920; *Rhabditis hominis* Kobayashi, 1920; *Rhabditis schachtliella* Skrjabin & Shults, 1926; *Rhabditoides schachtliella* (Skrjabin & Shults, 1926) Dougherty, 1955; *Rhabditis inermoides* Völk, 1950; *Rhabditis (Telorhabditis) inermoides* Völk, 1950 (Osche, 1952); *Rhitis inermis* (Schneider, 1866) Andrassy, 1983.

DISTRIBUTION: Mahou/Menorca-Baleares (Gadea, 1962a); Irati/Navarra (Hernández & Jordana, 1992).

REMARKS: No additional information about this species is available.

labiatus, Cephalobus (Ivanova, 1968) Andrassy, 1984
SYNONYMY: *Acrobeloides labiatus* Ivanova, 1968.

DISTRIBUTION: Sierra Nevada/Granada (Picazo *et al.*, 1988; Ocaña & Picazo, 1991).

REMARKS: No additional information about this species is available.

latus, Heterocephalobus (Cobb, 1906) Andrassy, 1967

SYNONYMY: *Cephalobus latus* Cobb, 1906; *Eucephalobus latus* (Cobb, 1906) Thorne, 1937.

DISTRIBUTION: Sierra Nevada/Granada (Picazo *et al.*, 1988; Ocaña & Picazo, 1991).

REMARKS: No additional information about this species is available.

lheritieri, Pristionchus (Maupas, 1919) Paramonov, 1952

SYNONYMY: *Diplogaster lheritieri* Maupas, 1919; *Diplogaster (Pristionchus) lheritieri* Maupas, 1919 (Völk, 1950); *Diplogaster (Mesodiplogaster) lheritieri* Maupas, 1919 (Hirschmann, 1951); *Mesodiplogaster lheritieri* (Maupas, 1919) Goodey, 1963; *Diplogaster lheritieri stenostoma* Hirschmann, 1951; *Diplogaster (Pristionchus) lheritieri stenostoma* Hirschmann, 1951 (Weingärtner, 1955); *Diplogaster (Pristionchus) lheritieri eurystoma* Hirschmann, 1951 (Weingärtner, 1955); *Diplogaster horticola* Fuchs, 1929; *Pristionchus horticola* (Fuchs, 1929) Paramonov, 1952; *Pristionchus longicaudatus* Kreis, 1932; *Pristionchus otto* Paramonov, 1952; *Diplogaster obscuridens* Schuurmans-Stekhoven, 1951; *Monochoides obscuridens* (Schuurmans-Stekhoven, 1951) Goodey, 1963; *Paramonoviola rhagii* Blinova & Vosilite, 1976.

DISTRIBUTION: Irati/Navarra (Hernández & Jordana, 1992).

REMARKS: No additional information about this species is available.

longicaudata, Rhabditis Bastian, 1865

SYNONYMY: *Rhabditis (Choriorhabditis) longicaudata* Bastian, 1865 (Osche, 1952); *Rhabditis longicaudata* Bütschli, 1873.

DISTRIBUTION: Panjón/ Pontevedra (Gadea, 1955b); Sierra de Gata (Palomo, 1979); Ezprogui and Leoz/ Navarra (Armendáriz *et al.*, 1996).

REMARKS: Armendáriz *et al.* (1996) recorded *R. longicaudatula* Bastian, 1865, certainly a typographical error. No additional information about this species is available.

loofi, Pseudacrobeles (Bunobus) (Andrassy, 1968) De Ley, Siddiqi & Boström, 1993

SYNONYMY: *Heterocephalobus loofi* Andrassy, 1968.

DISTRIBUTION: Ezprogui/Navarra (Armendáriz *et al.*, 1996).

REMARKS: No additional information about this species is available.

maupasi, Rhabditis Seurat in Maupas, 1919

SYNONYMY: *Rhabditis (Choriorhabditis) maupasi* Seurat in Maupas, 1919 (Osche, 1952); *Rhabditis johnsoni* Micoletzky, 1922; *Rhabditis (Choriorhabditis) johnsoni* Micoletzky, 1922 (Osche, 1952); *Rhabditis leptodera* Hertwig, 1922; *Rhabditis (Choriorhabditis) leptodera* Hertwig, 1922 (Osche, 1952).

DISTRIBUTION: Mendaca-Elorrio/Vizcaya and Olot/Gerona (Gadea, 1952a).

REMARKS: Gadea (1952a) recorded and described this species from two localities in the North of the Iberian Peninsula but some of the measurements given by the Catalonian author are out of the usual range of the species ($L=1.44$ vs $L=1.9-2.1$ mm; $c=14.4$ vs $c=19-20$). Taking into account such differences and the fact that no posterior record of the species has been registered, some doubt persists of its belonging to the Iberian fauna.

minimus, Chiloplacus (Thorne, 1925) Andrassy, 1959

SYNONYMY: *Acrobeles (Acrobeloides) minimus* Thorne, 1925; *Cervidellus minimus* (Thorne, 1925) Goodey, 1963; *Acrobelophis minimus* (Thorne, 1925) Andrassy, 1984; *Acrobeles soosi* Andrassy, 1953; *Chiloplacus soosi* (Andrassy, 1953) Andrassy, 1959; *Cervidellus soosi* (Andrassy, 1953) Goodey, 1963.

DISTRIBUTION: Unzué/Navarra (Hernández *et al.*, 1988; Hernández & Jordana, 1990; Hernández & Jordana, 1992); Añorbe and Ezprogui/Navarra (Armendáriz *et al.*, 1996).

REMARKS: No additional information about this species is available.

mucronatus, Eucephalobus (Kozłowska & Roguska-Wasilewska, 1963) Andrassy, 1967

SYNONYMY: *Cephalobus mucronatus* Kozłowska & Roguska-Wasilewska, 1963.

DISTRIBUTION: Sansoain and Unzué/ Navarra (Jordana *et al.*, 1987; Hernández *et al.*, 1988; Hernández & Jordana, 1990 & 1992); Añorbe/Navarra (Armendáriz *et al.*, 1996).

REMARKS: No additional information about this species is available.

***multipapillatum*, *Bunonema* Stefanski, 1914**

DISTRIBUTION: Añorbe, Beorburu, Eslava, Ezprogui, Javerri, Leoz, Marcaláin, Sabaiza and Zariquieta/ Navarra (Armendáriz & Hernández, 1992; Armendáriz *et al.*, 1994).

REMARKS: Armendáriz and Hernández (1992) provided measurements and illustrations of the specimens collected in northern Spain.

***nanus*, *Acrobeloides* (De Man, 1880) Anderson, 1968**

SYNONYMY: *Cephalobus nanus* De Man, 1880; *Cephalobus persegnis nanus* De Man, 1880 (Micoletzky, 1922); *Acrobelus (Acrobeloides) minor* Thorne, 1925; *Acrobeloides minor* (Thorne, 1925) Thorne, 1937.

DISTRIBUTION: Puigmal Summit/Gerona, Jaca/Huesca, Montseny/Barcelona, Deva River/Cantabria, Noguera River/Lérida and Sierra of Aralar/Navarra (Gadea, 1952a); Picos de Europa/Asturias (Gadea, 1953b); Canfranc, Selva de Oza and Panticosa/Huesca and Bohí/Lérida (Gadea, 1956); Alayor and La Falconera/Menorca-Baleares (Gadea, 1962a); Tagomago Island/Baleares (Gadea, 1964b); Catalonian Central Pyrenean (Gadea, 1982); Quinto Real/Navarra (Monreal & Campoy, 1982); Peñas de Echauri/Navarra (Mateo & Campoy, 1983); Bardenas/Navarra (Jordana *et al.*, 1987); Beunza, Sansoain and Unzué/Navarra (Hernández *et al.*, 1988; Hernández & Jordana, 1990 & 1992); Sierra Nevada/Granada (Ocaña, 1992); Sierra Morena/Sevilla (Santos-Lobatón, 1992); Añorbe, Beorburu, Ezprogui and Leoz/Navarra (Armendáriz *et al.*, 1996).

REMARKS: This is a worldwide distributed species. Although some measurements provided by Gadea (1952) are out the usual range of the species ($V=47$ vs $V=62-68$), more recent records confirm its presence in the North of the Iberian Peninsula and surely in the Balearic Islands. Monreal and Campoy (1982) and Mateo and Campoy (1983) provided measurements and/or illustrations of the material collected in Navarra.

***neftasiensis*, *Cervidellus* Boström, 1986**

DISTRIBUTION: Sayerri Valley/Huesca (De Ley *et al.*, 1994).

REMARKS: Good description and illustrations of the population collected in the province of Huesca were provided by De Ley *et al.* (1994).

***nudicapitatus*, *Diplogasteritus* (Steiner, 1914) Paramonov, 1952**

SYNONYMY: *Diplogaster nudicapitata* Steiner, 1914; *Acrostichus nudicapitatus* (Steiner, 1914) Massey, 1962;

Diplogaster rhodani Stefanski, 1914; *Diplogasteritus rhodani* (Stefanski, 1914) Paramonov, 1952; *Achrostichus rhodani* (Stefanski, 1914) Massey, 1966.

DISTRIBUTION: Sierra Nevada/Granada (Picazo *et al.*, 1988; Ocaña & Picazo, 1991; Ocaña, 1992).

REMARKS: No additional information about this species is available.

***oxyerca*, *Poikilolaimus* (De Man, 1895) Sudhaus, 1980**

SYNONYMY: *Rhabditis oxyerca* De Man, 1895; *Rhabditis (Choriorhabditis) oxyerca* De Man, 1895 (Osche, 1952); *Rhabditis (Cephaloboides) oxyerca* De Man, 1895 (Dougherty, 1955); *Cephaloboides oxyercus* (De Man, 1895) Zullini, 1982; *Anguillula brevispina* Claus, 1862 (*nomem oblitum* !); *Rhabditis brevispina* (Claus, 1862) Bütschli, 1873; *Rhabditis (Choriorhabditis) brevispina* (Claus, 1862) Osche, 1952; *Rhabditis nudicapitata* Stefanski, 1922; *Rhabditis demani* Hnatewytsh, 1929; *Rhabditis (Choriorhabditis) demani* Hnatewytsh, 1929 (Meyl, 1954); *Rhabditis variabilis* Fuchs, 1931; *Cuticularia mathesoni* Van der Linde, 1938; *Rhabditis mathesoni* (Van der Linde, 1938) Goodey, 1951; *Rhabditis (Choriorhabditis) mathesoni* (Van der Linde, 1938) Goodey, 1951 (Dougherty, 1953); *Rhabditis stalbergi* Allgén, 1950; *Rhabditis oerleyi* Völk, 1950; *Rhabditis succaris* Clapham, 1930; *Rhabditis (Choriorhabditis) succaris* Clapham, 1930 (Osche, 1952), *Rhabditis parapapillosa* Schuurmans Stekhoven, 1951; *Peplorhabditis vestibularis* Ivanova, 1960; *Protorhabditis cuneocaudata* Slepetiene, 1961; *Praeputirhabditis jodhapurensis* Khera, 1969; *Rhabditis (Cephaloboides) jodhapurensis* (Khera, 1969) Sudhaus, 1976; *Cuticularia oxyerca* (De Man, 1895) Andrassy, 1983.

DISTRIBUTION: Sierra Nevada/Granada (Picazo *et al.*, 1988; Ocaña & Picazo, 1991; Ocaña, 1992).

REMARKS: No additional information about this species is available.

***oxyuroides*, *Eucephalobus* (De Man, 1876) Steiner, 1936**

SYNONYMY: *Cephalobus oxyuroides* De Man, 1876; *Cephalobus oxyuroides acuticaudatus* Micoletzky, 1922; *Cephalobus oxyuroides brasiliensis* Rahm, 1928; *Cephalobus similis* Cobb, 1893.

DISTRIBUTION: Binillautí and Mahón/Menorca-Baleares (Gadea, 1962a); Medas Islands (Gadea, 1964a); Sierra Nevada/Granada (Jiménez Guirado, 1976b); Sierras de Gata and Béjar/ Salamanca (Palomo, 1979); Quinto Real/Navarra (Monreal & Campoy, 1982); Peñas de Echauri/Navarra (Mateo & Campoy, 1983); Añorbe, Eslava, Ezprogui, Javerri, Marcaláin, Sabaiza and Zariquieta/Navarra (Armendáriz & Hernández, 1994); Beorburu and Leoz/Navarra (Armendáriz and Hernández, 1994; Armendáriz *et al.*, 1996); Beunza, Sansoain and Unzué/ Navarra (Hernández *et al.*, 1988; Hernández & Jordana, 1990 & 1992).

REMARKS: Monreal and Campoy (1982) and Mateo and Campoy (1983) provided measurements and/or illustrations of the material collected in Navarra.

palustris, Teratocephalus (De Man, 1880) Andrassy, 1958

SYNONYMY: *Teratocephalus palustris* De Man, 1880; *Teratocephalus palustris crassicauda* Daday, 1897; *Euteratocephalus palustris crassicauda* (De Man, 1880) Meyl, 1961; *Teratocephalus spiraloides* Micoletzky, 1913; *Euteratocephalus spiraloides* (Micoletzky, 1913) Heyns, 1977; *Teratocephalus cornutus* Cobb, 1914; *Teratocephalus palustris cornutus* Cobb, 1914 (Micoletzky, 1922).

DISTRIBUTION: Sierra Segundera/Zamora (Gadea, 1954b); Antela/Orense (Gadea, 1955b).

REMARKS: Short description and illustrations of Spanish specimens provided by Gadea (1954b) fit well with those of other populations, although their body is a bit shorter (L=0.6, 0.9 vs L=0.8-1.0 mm) and the vulva more posterior (V=55, 57 vs V=50-52).

papillosa, Phasmarhabditis (Schneider, 1866) Andrassy, 1976

SYNONYMY: *Pelodera papillosa* Schneider, 1866; *Rhabditis papillosa* (Schneider, 1866) Örley, 1880; *Rhabditis (Choriorhabditis) papillosa* (Schneider, 1866) Örley, 1880 (Osche, 1952); *Rhabditis (Pellioiditis) papillosa* (Schneider, 1866) Örley, 1880 (Dougherty, 1955); *Rhabditis ikedai* Tadanó, 1950.

DISTRIBUTION: Cueva Calera/Logroño (Gadea, 1955a).

REMARKS: Gadea (1955a) described and illustrated this species, but no posterior record is known in our country.

paracornutus, Eucephalobus De Coninck, 1943

DISTRIBUTION: Peñas de Echauri/Navarra (Mateo & Campoy, 1983).

REMARKS: Mateo and Campoy (1983) described and illustrated the population collected in northern Spain.

parvus, Cephalobus Thorne, 1937

DISTRIBUTION: Sansoain/Navarra (Hernández *et al.*, 1988; Hernández & Jordana, 1990 & 1992).

REMARKS: No additional information about this species is available.

paucipapillata, Bursilla (Paetzold, 1955) Andrassy, 1983

SYNONYMY: *Rhabditis (Mesorhabditis) paucipapillata* Paetzold, 1955; *Mesorhabditis paucipapillata* (Paetzold, 1955) Paetzold, 1958.

DISTRIBUTION: Beunza and Sansoain/Navarra (Hernández *et al.*, 1988; Hernández & Jordana, 1990 & 1992).

REMARKS: No additional information about this species is available.

pellio, Pellioiditis (Schneider, 1866) Timm, 1960

SYNONYMY: *Pelodera pellio* Schneider, 1866; *Rhabditis pellio* (Schneider, 1866) Bütschli, 1873; *Rhabditis (Choriorhabditis) pellio* (Schneider, 1866) Bütschli, 1873 (Osche, 1952); *Rhabditis (Pellioiditis) pellio* (Schneider, 1866) Bütschli, 1873 (Dougherty, 1953); *Leptodera pellio* (Schneider, 1866) Ward, 1903.

DISTRIBUTION: Ciudadela/Menorca-Baleares (Gadea, 1962a).

REMARKS: No additional information about this species is available.

pellioides, Pellioiditis (Bütschli, 1873) Andrassy, 1983

SYNONYMY: *Rhabditis pellioides* Bütschli, 1873; *Rhabditis (Choriorhabditis) pellioides* Bütschli, 1873 (Osche, 1952); *Rhabditis oncomelaniae* Yokoo & Okabe, 1968; *Rhabditis (Choriorhabditis) oncomelaniae* Yokoo & Okabe, 1968 (Sudhaus, 1976).

DISTRIBUTION: Quinto Real/Navarra (Hernández & Jordana, 1992).

REMARKS: No additional information about this species is available.

penardi, Bunonema Stefanski, 1914

DISTRIBUTION: Irati/Navarra (Hernández & Jordana, 1992).

REMARKS: No additional information about this species is available.

persegnis, Cephalobus Bastian, 1865

SYNONYMY: *Cephalobus brevicaudatus* Zimmermann, 1898; *Cephalobus persegnis brevicaudatus* Zimmermann, 1898 (Micoletzky, 1922).

DISTRIBUTION: Navas de San Luis/Málaga (Gadea, 1953a); Mampodre/León (Gadea, 1953b); Turbón/Huesca (Gadea, 1956); Alayor and Mahón/Baleares (Gadea, 1962a); Menorca/Baleares (Gadea, 1969); Sierra Nevada/Granada (Jiménez-Guirado, 1976b); Catalanian Central Pyrenean (Gadea, 1982); Montes Alberes/Lérida (Gadea, 1983); Bardenas/Navarra (Jordana *et al.*, 1987); Sansoain and Unzué/Navarra (Hernández *et al.*, 1988; Hernández & Jordana, 1990 & 1992); Sierra Nevada/Granada (Ocaña, 1992); Añorbe, Beorburu, Ezprogui and Leoz/Navarra (Armendáriz *et al.*, 1996).

REMARKS: No additional information about this species is available.

producta, *Rhabditis* (Schneider, 1866) von Linstow, 1878

SYNONYMY: *Leptodera producta* Schneider, 1866; *Rhabditis (Choriorhabditis) producta* (Schneider, 1866) von Linstow, 1878 (Osche, 1952).

DISTRIBUTION: Castelfells/Barcelona and Olot/Gerona (Gadea, 1952a); Sierra de Albarracín/Teruel (Gadea, 1952b); Mampodre/León and Picos de Europa/Asturias (Gadea, 1953b); Sierra de Guadarrama/Madrid (Gadea, 1953c, 1979); Panticosa/Huesca (Gadea, 1956); Alayor, Binillautí and Mahón/Menorca-Baleares (Gadea, 1962a); Albarán/Murcia (Jiménez-Millán, 1962b; Navacerrada, 1975); Carrión River/Palencia (Gadea, 1963); Dunas de Mitjorn, Isla Grande de Santa Eulalia and Isla Malví/Baleares (Gadea, 1964b); Menorca/Baleares, Pitiusas Islands/Baleares (Gadea, 1969); Sierra de Albarracín/Teruel (Gadea, 1979); Catalanian Central Pyrenean (Gadea, 1982); Quinto Real/Navarra (Monreal & Campoy, 1982); Montes Albes/Gerona (Gadea, 1983).

REMARKS: Monreal and Campoy (1982) provided measurements and illustrations of the material collected in Navarra.

propinquus, *Chiloplacus* (De Man, 1921) Thorne, 1937

SYNONYMY: *Cephalobus (Acrobeles) propinquus* De Man, 1921; *Acrobeles (Acrobeloides) propinquum* (De Man, 1921) Thorne, 1925; *Acrobeles (Acrobeloides) contractus* Thorne, 1925; *Cephalobus contractus* (Thorne, 1925) Steiner, 1934.

DISTRIBUTION: El Arahal/Sevilla (Arias *et al.*, 1963; Jiménez-Millán *et al.*, 1965); Peñas de Echauri/Navarra (Mateo & Campoy, 1983).

REMARKS: Mateo and Campoy (1983) illustrated and provided measurements of a population collected in northern Spain.

psammophilus, *Paracrobeles* Navarro & Lluch, 1999

DISTRIBUTION: El Saler/Valencia (Navarro & Lluch, 1999).

REMARKS: This is the second species of the genus and its finding in our country has a great biogeographic interest due to the another species, *Paracrobeles laterellus* Heyns, 1968, is only known from South Africa and Namibia.

pseudoelongata, *Rhabditella* (Micoletzky, 1913) Andrassy, 1983

SYNONYMY: *Rhabditis pseudoelongata* Micoletzky, 1913;

Rhabditis (Rhabditella) pseudoelongata Micoletzky, 1913 (Sudhaus, 1976); *Leptodera elongata* Schneider, 1866, *nec* Baird, 1858; *Rhabditis elongata* (Schneider, 1866) Bütschli, 1876; *Rhabditis (Choriorhabditis) elongata* (Schneider, 1866) Bütschli, 1876 (Osche, 1952); *Rhabditis tenuicaudata* Menzel & Stefanski *in* Stefanski, 1917; *Rhabditella tenuicaudata* (Menzel & Stefanski *in* Stefanski, 1917) Chitwood, 1933; *Rhabditis usui* Watanabe, 1927; *Rhabditis gracilis* Shingareva, Demidova & Kudriavtsev, 1928; *Rhabditella gracilis* (Shingareva, Demidova & Kudriavtsev, 1928) Chitwood, 1933; *Rhabditis macrocerca* Kreis & Faust, 1933; *Rhabditella macrocerca* (Kreis & Faust, 1933) Steiner, 1943; *Rhabditis trincincta* Paesler, 1946; *Rhabditella multipara* Li, 1951.

DISTRIBUTION: Desfiladero de los Veyos and Picos de Europa/Asturias (Gadea, 1953b); Sierra de Gata /Salamanca (Palomo, 1979).

REMARKS: Spanish records of the species refer to *Rhabditis elongata*, a junior synonym of the species. No additional information about this species is available.

pseudolatus, *Pseudacrobeles (Bunobus)* (Hernández, 1990) De Ley, Siddiqi & Boström, 1993

SYNONYMY: *Heterocephalobus pseudolatus* Hernández, 1990.

DISTRIBUTION: Beunza/Navarra (Hernández, 1990); Añorbe/Navarra (Armendáriz *et al.*, 1996).

REMARKS: At present, this species is only known from Spain. Hernández (1990) provided a detailed description of it, including illustrations and measurements.

punctata, *Pelodera* (Cobb, 1914) Dougherty, 1955

SYNONYMY: *Rhabditis punctata* Cobb, 1914; *Rhabditis (Pelodera) punctata* Cobb, 1914 (Sudhaus, 1976); *Rhabditis chitwoodi* Bassen, 1940; *Pelodera chitwoodi* (Bassen, 1940) Dougherty, 1955; *Teratorhabditis vivipara* Gagarin, 1977.

DISTRIBUTION: Sierra Nevada/Granada (Picazo *et al.*, 1988; Ocaña & Picazo, 1991).

REMARKS: No additional information about this species is available.

pyrenaicus, *Teratocephalus* Gadea, 1956

DISTRIBUTION: Engors/Gerona (Gadea, 1956).

REMARKS: Gadea (1956: 144) proposed *T. pyrenaicus* as new species, but no description, measurements nor illustration were supplied by the Catalanian author. So, it must be considered as *nomen nudum*.

reticulatum, *Bunonema* Richters, 1905

SYNONYMY: *Bunonema bogdanovi* Zograf, 1913.

DISTRIBUTION: Quinto Real/Navarra (Monreal & Campoy, 1982).

REMARKS: Monreal and Campoy (1982) provided measurements and illustrations of the material collected in Navarra.

***richtersi*, *Bunonema* Jägerskiöld, 1905**

SYNONYMY: *Bunonema richtersi aberrans* Steiner, 1914.

DISTRIBUTION: Quinto Real/Navarra (Monreal & Campoy, 1982); Beunza/Navarra (Hernández *et al.*, 1988; Hernández & Jordana, 1990 & 1992; Armendáriz & Hernández, 1992); Sansoain/Navarra (Hernández *et al.*, 1988; Armendáriz & Hernández, 1992); Beorburu/Navarra (Armendáriz *et al.*, 1996).

REMARKS: Monreal and Campoy (1982) and Armendáriz and Hernández (1992) provided measurements and illustrations of the specimens collected in northern Spain.

***rigidus*, *Panagrolaimus* (Schneider, 1866) Thorne, 1937**

SYNONYMY: *Leptodera rigida* Schneider, 1866; *Anguillula rigida* (Schneider, 1866) Bütschli, 1876; *Cephalobus rigidus* (Schneider, 1866) Örley, 1880; *Rhabditis rigida* (Schneider, 1869 von Linstow, 1883; *Cephalobus oxyuris* Bütschli, 1873; *Panagrolaimus oxyuris* (Bütschli, 1873) Goodey, 1963; *Cephalobus infestans* Cobb, 1893; *Rhabditis aquatica* Micoletzky, 1913; *Panagrolaimus aquaticus* (Micoletzky, 1913) Goodey, 1963.

DISTRIBUTION: Barcelona and Montseny/Barcelona, Engors and Maranges/Gerona, and Peñalara/Madrid (Gadea, 1952a); Sierra de Albarracín/Teruel (Gadea, 1952b); Sierra de Guadarrama (Gadea, 1953c); Panticosa/Huesca and Maranges/Gerona (Gadea, 1956); Ciudadela/Menorca-Baleares (Gadea, 1962a); Malví Island/Baleares (Gadea, 1964b); Columbretes Islands (Gadea, 1974); Isla Mayor/Murcia (Gadea, 1976); Sierra Nevada/Granada (Jiménez-Guirado, 1976b); Catalanian Central Pyrenean (Gadea, 1982); Quinto Real/Navarra (Monreal & Campoy, 1982); Montes Alberes/Gerona (Gadea, 1983); Sierra Nevada/Granada (Picazo *et al.*, 1988; Picazo & Ocaña, 1991); Quinto Real/Navarra (Hernández & Jordana, 1992); Añorbe, Beorburu, Ezprogui and Leoz / Navarra (Armendáriz *et al.*, 1996).

REMARKS: This is a cosmopolitan species, certainly widely distributed in our soils and freshwaters. Description and measurements of Spanish material provided by Gadea (1952a) agree well with other European populations although some small but significant differences can be noted: longer neck ($b=3.3$ vs $b=4.6-5.9$) and more anterior vulva ($V=51$ vs $V=57-61$). Then, it is convenient

the study of additional Spanish material to confirm such differences which can have taxonomic interest. Some of the records by Gadea (*e.g.* 1956, 1982 in part) correspond to *Cephalobus oxyuris*, a junior synonym of *P. rigidus*. Monreal and Campoy (1982) provided measurements and illustrations of the material collected in Navarra.

***rivalis*, *Diplogaster* (Leydig, 1854) Bütschli, 1873**

SYNONYMY: *Oncholaimus rivalis* Leydig, 1854; *Diplogaster micans* Schultze in Carus, 1857; *Diplogaster tridentata* Metchnikov, 1863; *Diplogaster vivipara* von Linstow, 1879; *Diplogaster macrodon* Örley, 1880; *Diplogaster lacustris* Daday, 1894; *Diplogaster laevis* de Cillis, 1917; *Diplogaster bodamica* Micoletzky, 1922.

DISTRIBUTION: El Grao/Castellón (Gadea, 1952c); Maranges/Gerona (Gadea, 1956); Carrión River/Palencia (Gadea, 1963).

REMARKS: Gadea (1952c) described and illustrated in detail the specimens found in Castellón, and his measurements fit well with the available data of the species.

***ruffoi*, *Mononchoides* Zullini, 1983**

DISTRIBUTION: Sierra Nevada/Granada (Picazo *et al.*, 1988).

REMARKS: No additional information about this species is available.

***schneideri*, *Rhabditophanes* (Bütschli, 1873) Goodey, 1953**

SYNONYMY: *Rhabditis schneideri* Bütschli, 1873.

DISTRIBUTION: Cubillas River/Granada (Jiménez-Guirado, 1974); Sierra de Gata (Palomo, 1979).

REMARKS: An interesting taxonomic contribution on this species was carried out by Jiménez-Guirado (1974), including description, measurements and illustrations of the material collected in the South of the Iberian Peninsula.

***serratus*, *Cervidellus* (Thorne, 1925) Thorne, 1937**

REMARKS: See under *Cervidellus vexilliger*, its senior synonym.

***similis*, *Stegelletina* (Thorne, 1925) Boström & De Ley, 1996**

SYNONYMY: *Acrobeles similis* Thorne, 1925; *Cervidellus similis* (Thorne, 1925) Thorne, 1937; *Ypsylonellus similis* (Thorne, 1925) Andrassy, 1984; *Stellegetina lineata* (Thorne, 1925) Andrassy, 1984; *Stellegetina mucronata* (Loof, 1971) Andrassy, 1984.

DISTRIBUTION: Puerto del Pinar/Granada, Igüer and Sayerri Valleys/Huesca (De Ley *et al.*, 1994).

REMARKS: De Ley *et al.* (1994) published a very detailed description of this species, including SEM illustrations.

singulus, *Acrobeles* Heyns, 1969

DISTRIBUTION: Unzué/Navarra (Hernández *et al.*, 1988; Hernández & Jordana, 1990 & 1992); Bardenas/Navarra (Jordana *et al.*, 1987).

REMARKS: Andrassy (1984) considered this species a junior synonym of *A. ciliatus*, but after Shahina and De Ley (1997) it is valid. No additional information about this species is available.

skrjabini, *Acromoldavicus* (Nesterov & Lisetskaya, 1965) Nesterov, 1970

SYNONYMY: *Acrobeloides skrjabini* Nesterov & Lisetskaya, 1965.

DISTRIBUTION: Sierra de la Sagra/Granada (Karegar *et al.*, 1997).

REMARKS: Karegar *et al.* (1997) studied three specimens of this species from Spain and provided a very detailed description of this material including SEM photographs.

soosi, *Acrobelophis* (Andrassy, 1953) Andrassy, 1984

REMARKS: See under *Chiloplacus minimus*, its senior synonym.

spiculigera, *Mesorhabditis* (Steiner, 1936) Dougherty, 1953

SYNONYMY: *Rhabditis spiculigera* Steiner, 1936; *Rhabditis (Mesorhabditis) spiculigera* Steiner, 1936 (Osche, 1952); *Pseudorhabditis acuminata* Kreis, 1929; *Asymmetricus acuminatus* (Kreis, 1929) Kreis, 1930; *Rhabditis acuminata* (Kreis, 1929) Nigon, 1949; *Tricephalobus acuminatus* (Kreis, 1929) Goodey, 1951; *Mesorhabditis acuminata* (Kreis, 1929) Dougherty, 1955; *Trilabiatius acuminatus* (Kreis, 1929) Goodey, 1963.

DISTRIBUTION: Sierra de Gata/Salamanca (Palomo, 1979); Quinto Real/Navarra (Monreal & Campoy, 1982); Beunza/Navarra (Hernández *et al.*, 1988); Sansoain/Navarra (Hernández *et al.*, 1988; Jordana *et al.*, 1987); Añorbe, Beorburu, Ezprogui and Leoz/Navarra (Armendáriz *et al.*, 1996).

REMARKS: Monreal and Campoy (1982) provided measurements and illustrations of the material collected in Navarra. Jordana *et al.* (1987) recorded *Mesorhabditis cf. spiculigera* from Sansoain, province of Navarra.

stigmatus, *Rhabditoides* (Steiner, 1930) Andrassy, 1984

SYNONYMY: *Diplogasteroides stigmatus* Steiner, 1930; *Diplogasteroides (Anchidiplogasteroides) stigmatus* Steiner, 1930 (Körner, 1954); *Diplogasteroides (Rhabdantolaimus)*

stigmatus Steiner, 1930 (Rühm, 1956); *Rhabditolaimus stigmatus* (Steiner, 1930) Andrassy, 1958; *Rhabdantolaimus stigmatus* (Steiner, 1930) Meyl, 1961; *Anchidiplogasteroides stigmatus* (Steiner, 1930) Paramonov, 1964.

DISTRIBUTION: Sierra Nevada/Granada (Picazo *et al.*, 1988; Ocaña & Picazo, 1991).

REMARKS: No additional information about this species is available.

striatus, *Eucephalobus* (Bastian, 1865) Thorne, 1937

SYNONYMY: *Cephalobus striatus* Bastian, 1865; *Cephalobus (Eucephalobus) striatus* Bastian, 1865 (Schneider, 1939); *Cephalobus striatus atubifer* Micoletzky, 1922; *Cephalobus striatus tubifer* Micoletzky, 1922; *Cephalobus striatus microtubifer* Micoletzky, 1922; *Cephalobus bursifer* De Man, 1876.

DISTRIBUTION: Sierra Nevada/Granada (Picazo *et al.*, 1988; Ocaña & Picazo, 1991); Añorbe, Ezprogui and Leoz/Navarra (Armendáriz *et al.*, 1996); Sierra Bermeja/Málaga, Sierra de las Nieves/Málaga and Sierra de Grazalema/Cádiz (Peña-Santiago *et al.*, 1996).

REMARKS: No additional information about this species is available.

strongyloides, *Pelodera* (Schneider, 1860) Schneider, 1866

SYNONYMY: *Pelodytes strongyloides* Schneider, 1866; *Leptodera strongyloides* (Schneider, 1866) Schneider, 1866; *Rhabditis strongyloides* (Schneider, 1860) von Linstow, 1878; *Rhabditis (Pelodera) strongyloides* (Schneider, 1866) von Linstow, 1878 (Sudhaus, 1976); *Rhabditis teroides* Micoletzky, 1915; *Rhabditis taurica* Mirethkij & Skrjabin, 1865; *Pelodera comandorica* Belogurov, Mukhina & Churikova, 1977.

DISTRIBUTION: Sierra de Gata/Salamanca (Palomo, 1979).

REMARKS: No additional information about this species is available.

subvesus, *Teratocephalus* Anderson, 1969

REMARKS: See under *T. dadayi*, its senior synonym.

symmetricus, *Chiloplacus* (Thorne, 1925) Thorne, 1937

SYNONYMY: *Acrobeles (Acrobeloides) symmetricus* Thorne, 1925; *Cephalobus symmetricus* (Thorne, 1925) Steiner, 1935.

DISTRIBUTION: Unzué/Navarra (Hernández *et al.*, 1988; Hernández & Jordana, 1990 & 1992).

REMARKS: No additional information about this species is available.

teres, *Pelodera* Schneider, 1866

SYNONYMY: *Leptodera teres* (Schneider, 1866) Schneider, 1866; *Rhabditis teres* (Schneider, 1866) Bütschli, 1873;

Rhabditis (Pelodera) teres (Schneider, 1866) Bütschli, 1873 (Sudhaus, 1976); *Aguillula mucronata* Grube, 1849; *Rhabditis mucronata* (Grube, 1849) Bastian, 1865; *Pelodera mucronata* (Grube, 1849) Schneider, 1866; *Rhabditis donbass* Skrjabin, Schults & Serbinov, 1926; *Pelodera donbass* (Skrjabin, Schults & Serbinov, 1926) Dougherty, 1955.

DISTRIBUTION: Mendaca-Elorrio/Vizcaya, Peñalara/Cantabria, Felanix/Mallorca-Baleares, Jaca, Panticosa and Selva de Oza/Huesca, and Castelldefels/Barcelona (Gadea, 1952a); Isla Mayor/Murcia (Gadea, 1976).

REMARKS: See comments under *R. terricola*.

teres, Pseudacrobeles (Pseudacrobeles) (Thorne, 1937) De Ley, Siddiqi & Boström, 1993

SYNONYMY: *Eucephalobus teres* Thorne, 1937; *Cephalobus (Eucephalobus) teres* (Thorne, 1937) Rühm, 1956; *Heterocephalobus teres* (Thorne, 1937) Andrassy, 1967.

DISTRIBUTION: Quinto Real/Navarra (Monreal & Campoy, 1982); Peñas de Echauri/Navarra (Mateo & Campoy, 1983); Bardenas/Navarra (Jordana *et al.*, 1987).

REMARKS: Monreal and Campoy (1982) and Mateo and Campoy (1983) provided measurements and/or illustrations of the material collected in Navarra.

terrestris, Teratocephalus (Bütschli, 1873) De Man, 1876

SYNONYMY: *Anguillula terrestris* Bütschli, 1873; *Teratocephalus angustus* Massey, 1974.

DISTRIBUTION: Sierra de Albarracín/Teruel (Gadea, 1952b); Sierra de las Nieves/Málaga (Gadea, 1953a); Desfiladero de Veyos and Picos de Europa/Asturias, and Las Salas/León (Gadea, 1953b); Sierra de Guadarrama/Madrid (Gadea, 1953c); Sierra Segundera/Zamora (Gadea, 1954a); Peña Trevinca/Zamora (Gadea, 1954b); Cueva Calera/Logroño (Gadea, 1955a); Moaña/Pontevedra (Gadea, 1955b); Selva de Oza and Panticosa/Huesca and Engors/Gerona (Gadea, 1956); Estany Llebreta/Lérida (Gadea, 1962b); Montejo de la Sierra/Madrid, and Sierra de Ronda/Málaga (Jiménez-Millán *et al.*, 1965); Sierra de Cazorla/Jaén, Sierra de Cuenca/Cuenca and Sierra de Albarracín (Gadea, 1979); Sierras de Gata and Béjar/Salamanca (Palomo, 1979); Catalanian Central Pyrenean (Gadea, 1982); Quinto Real/Navarra (Monreal & Campoy, 1982); Peñas de Echauri/Navarra (Mateo & Campoy, 1983); Montes Alberes/Gerona (Gadea, 1983); Sansoain/Navarra (Hernández *et al.*, 1988; Hernández & Jordana, 1990 & 1992); Sierra de

Grazalema/Cádiz (Santos-Lobatón, 1991); Sierra Morena/Sevilla (Santos-Lobatón, 1992); Añorbe, Beorburu, Ezprogui and Leoz (Armendáriz *et al.*, 1996).

REMARKS: This is a cosmopolitan species. Some doubt exists on the identity of the specimens identified by Gadea (1952b, 1953a) due to its anterior vulva compared with the usual range of the species ($V=44-45$ vs $V=52-56$). Anyway, posterior records indicate *T. terrestris* is a member of the Iberian fauna. Monreal and Campoy (1982) and Mateo and Campoy (1983) provided measurements and/or illustrations of the material collected in Navarra.

terricola, Rhabditis Dujardin, 1845

SYNONYMY: *Angiostoma terricola* (Dujardin, 1845) Diesing, 1851; *Leptodera terricola* (Dujardin, 1845) Chatin, 1888; *Rhabditis terricola spiculofusa* Abuladze, 1934; *Rhabditis aspera* Bütschli, 1873; *Rhabditis (Choriorhabditis) aspera* Bütschli, 1873 (Osche, 1952)

DISTRIBUTION: Sierra Nevada/Granada (Muñoz-Medina, 1945); Onda/Castellón (Gadea, 1952c); Peña Prieta /León-Cantabria-Palencia (Gadea, 1953b); Selva de Oza, Panticosa, Circo de Soaso and Turbón/Huesca (Gadea, 1956); Fornells and San Luis/Menorca-Baleares (Gadea, 1962a); Central Spain (Jiménez-Millán, 1962); Isla Mayor/Murcia (Gadea, 1976); Sierras de Gata and Béjar/Salamanca (Palomo, 1979); Catalanian Central Pyrenean (Gadea, 1982); Quinto Real/Navarra (Monreal & Campoy, 1982); Quinto Real/Navarra (Mateo & Campoy, 1983); Montes Alberes/Gerona (Gadea, 1983).

REMARKS: Spanish records of this species correspond to *R. aspera*, a junior synonym of *R. terricola*. Muñoz-Medina (1945; mentioned by Jiménez-Guirado, 1976a) recorded *Rhabditophanes terricola*, certainly (?) a typographical error referring *R. terricola*. Gadea (1952a) described and illustrated a male specimen. Gadea (1953b) recorded *R. terricola* but the author also referred to *R. teres* – which Gadea mentioned as a junior synonym of *R. terricola* – and this finding surely corresponds to the latter species. Monreal and Campoy (1982) and Mateo and Campoy (1983) provided measurements and/or illustrations of the material collected in Navarra.

tigrodon, Panagrolaimus Fuchs, 1930

SYNONYMY: *Panagrodontus tigrodon* (Fuchs, 1930) Thorne, 1937; *Panagrolaimoides tigrodon* (Fuchs, 1930) Ivanova, 1958; *Panagrodontus dentatus* Thorne, 1935; *Panagrolaimus dentatus* (Thorne, 1935) Rühm, 1956; *Panagrodontus ruehmi* Ivanova, 1958.

DISTRIBUTION: Quinto Real/Navarra (Hernández & Jordana, 1992).

REMARKS: No additional information about this species is available.

tripartitum, *Cruznema* (von Linstow, 1906) Zullini, 1982

SYNONYMY: *Rhabditis tripartita* von Linstow, 1906; *Rhabditis (Cruznema) tripartita* von Linstow, 1906 (Sudhaus, 1974); *Rhabditis lambdiensis* Maupas, 1919; *Pelodera (Cruznema) lambdiensis* (Maupas, 1919) Dougherty, 1953; *Cruznema lambdiensis* (Maupas, 1919) Thorne, 1961; *Rhabditis monhysteroides* Skwarra, 1921; *Pelodera (Cruznema) monhysteroides* (Skwarra, 1921) Dougherty, 1955; *Rhabditis cryptocercoides* Wollenweber, 1921; *Rhabditis (Mesorhabditis) cryptocercoides* (Wollenweber, 1921) Osche, 1952; *Mesorhabditis cryptocercoides* (Wollenweber, 1921) Dougherty, 1955; *Rhabditis (Mesorhabditis) macrocheila* Kreis, 1932; *Mesorhabditis macrocheila* (Kreis, 1932) Dougherty, 1955; *Cruznema cruznema* Artigas, 1927; *Epimenides extricatus* Gutiérrez, 1949; *Pelodera melisi* Marinari, 1957; *Pelodera (Cruznema) melisi* Marinari, 1957 (Meyl, 1961).

DISTRIBUTION: Sierra Nevada/Granada (Picazo *et al.*, 1988; Ocaña & Picazo, 1991).

REMARKS: No additional information about this species is available.

tristis, *Protorhabditis* (Hirschmann, 1952) Dougherty, 1955

SYNONYMY: *Rhabditis (Protorhabditis) tristis* Hirschmann, 1952.

DISTRIBUTION: Sierras de Gata and Béjar/Salamanca (Palomo, 1979); Beunza, and Unzué/Navarra (Hernández *et al.*, 1988; Hernández & Jordana, 1988 & 1992); Sansoain/Navarra (Hernández *et al.*, 1988; Hernández & Jordana, 1990 & 1992; Jordana *et al.*, 1987); Añorbe, Beorburu, Ezprogui and Leoz/Navarra (Armendáriz *et al.*, 1996).

REMARKS: No additional information about this species is available.

troglophilus, *Cephalobus* Andrassy, 1967

DISTRIBUTION: Sansoain/Navarra (Hernández *et al.*, 1988; Hernández & Jordana, 1992); Unzué/Navarra (Hernández *et al.*, 1988; Hernández & Jordana, 1990 & 1992); Bardenas/Navarra (Jordana *et al.*, 1987).

REMARKS: No additional information about this species is available.

tuerkorum, *Bunonema* Sachs, 1949

DISTRIBUTION: Beunza/Navarra (Hernández *et al.*, 1988; Hernández & Jordana, 1990 & 1992);

Armendáriz & Hernández, 1992); Sansoain/Navarra (Jordana *et al.*, 1987; Hernández *et al.*, 1988; Hernández & Jordana, 1990 & 1992; Armendáriz & Hernández, 1992); Añorbe and Beorburu/Navarra (Armendáriz *et al.*, 1996).

REMARKS: Armendáriz and Hernández (1992) provided measurements and illustrations of the specimens collected in northern Spain.

vexilliger, *Cervidellus* (De Man, 1880) Thorne, 1937

SYNONYMY: *Cephalobus vexilliger* De Man, 1880; *Cephalobus (Acrobeles) vexilliger* De Man, 1880 (De Man, 1921); *Acrobeles vexilliger* (De Man, 1880) Thorne, 1925; *Ypsylonellus vexilliger* (De Man, 1880) Andrassy, 1984; *Acrobeles serratus* Thorne, 1925; *Cervidellus serratus* (Thorne, 1925) Thorne, 1937.

DISTRIBUTION: Peñas de Echaury/Navarra (Mateo & Campoy, 1983); Bardenas/Navarra (Jordana *et al.*, 1987); Igüer and Sayerrri Valleys/Huesca (De Ley *et al.*, 1994); Sansoain and Unzué/Navarra (Hernández *et al.*, 1988; Hernández & Jordana, 1990 & 1992); Añorbe/Navarra (De Ley *et al.*, 1994; Armendáriz *et al.*, 1996); Beorburu, Ezprogui and Leoz/Navarra (Armendáriz *et al.*, 1996).

REMARKS: De Ley *et al.* (1994) recorded and described in detail this species that they identified as *Cervidellus serratus*, one of its junior synonyms.

Discussion

According to the exposed information the catalogue of rhabditid species forming part of the Spanish fauna (except those inhabiting the Canary Islands) includes eighty species belonging to forty genera and twelve families, that is, little more than one-fourth of the total world rhabditid genera are presented in the Iberian soils and freshwaters. However, these data should be considered as preliminary results and taken with caution due that various error sources exist. As mentioned in the introduction, no monographic study on rhabditid diversity in the Iberian Peninsula has been carried out so far, thus an increase of the inventory should be obtained in the future when these studies are developed. The information referring to forty-five species is merely chorological and/or faunistic, lacking detailed descriptions and revisions of this material. Moreover, some of the records date from the fifties and sixties of the past century and were not ever confirmed. Therefore, new surveys and collections will be necessary to ascertain the real

presence of a high number of species in the Iberian geography. If these actions were undertaken, the number of taxa would be likely reduced.

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Appendix I.— Taxonomic position of rhabditid species found in peninsular Spain and Balearic Islands.

ORDEN RHABDITIDA Chitwood, 1933

SUBORDEN CEPHALOBINA Andrásy, 1974

Superfamilia Cephaloidea Filipjev, 1934

Familia Cephalobidae Filipjev, 1934

Subfamilia Acrolobinae De Ley, Boström *et* Siddiqi, 1993*Acrolobus* Boström, 1985*A. emarginatus*

Subfamilia Cephalobinae Filipjev, 1934

Acrobeles von Linstow, 1877*A. ciliatus**A. complexus**A. elaboratus**A. singulus**Acrobeloides* Cobb, 1924*A. buetschlii**A. nanus**Cephalobus* Bastian, 1865*C. labiatus**C. parvus**C. persegnis**C. troglophilus**Cervidellus* Thorne, 1937*C. cervus**C. nefasiensis**C. vexilliger**Chiloplacus* Thorne, 1937*C. minimus**C. propinquus**C. symmetricus**Eucephalobus* Steiner, 1936*E. cornis**E. mucronatus**E. oxyuroides**E. paracornutus**E. striatus**Heterocephalobus* (Brzeski, 1960) Brzeski, 1961*H. bisimilis**H. elongatus**H. latus**Paracrobeles* Heyns, 1968*P. psammophilus**Pseudacrobeles* Steiner, 1938*P. (Pseudacrobeles)* Steiner, 1938*P. (P.) teres**P. (Bunobus)* De Ley, Boström *et* Siddiqi, 1993*P. (B.) loofi**P. (B.) pseudolatus**Stegelletina* Andrásy, 1984*S. devimucronata**S. similis*

Familia Elaphonematidae Heyns, 1962

Subfamilia Kirjanoviinae Andrásy, 1976

Acromoldavicus Nesterov, 1970*A. skrjabini*

Familia Osstellidae Heyns, 1962

Subfamilia Drilocephalobinae Ali, Suryawanshi *et* Chisty, 1973*Drilocephalobus* Coomans *et* Goodey, 1965*D. coomansi*

Superfamilia Panagrolaimoidea Thorne, 1937

Familia Panagrolaimidae Thorne, 1937

Panagrolaimus Fuchs, 1930*P. facetus**P. hygrophilus**P. rigidus**P. tigrodon*Superfamilia Strongyloidea Chitwood *et* McIntosh, 1934Familia Alloionematidae Chitwood *et* McIntosh, 1934*Rhabditophanes* Fuchs, 1930*R. schneideri*

SUBORDEN RHABDITINA Andrásy, 1974

Superfamilia Bunonematoidea Micoletzky, 1922

Familia Bunonematida Micoletzky, 1922

Subfamilia Bunonematinae

Bunonema Jägerskiöld, 1905*B. multipapillatum**B. penardi**B. reticulatum**B. richtersi**B. tuerkorum**Rhodolaimus* Fuchs, 1930*R. goffarti*

Superfamilia Rhabditoidea Örley, 1880

Familia Rhabditidae Örley, 1880

Cruznema Artigas, 1927*C. tripartitum**Cephaloboides* Rahm, 1928*C. curvicaudata**Poikilolaimus* Fuchs, 1930*P. oxycerca**Diploscapter* Cobb, 1913*D. coronatus**Mesorhabditis* Osche, 1952*M. spiculigera**Pellioiditis* Dougherty, 1953*P. pellio**P. pellioides**Pelodera* Schneider, 1866*P. punctata**P. strongyloides**P. teres**Phasmarhabditis* Andrásy, 1976*P. papillosa**Protorhabditis* Osche, 1952*P. filiformis**P. tristis**Rhabditella* Cobb, 1929*R. pseudoelongata**Rhabditis* Dujardin, 1845*R. axei**R. longicaudata**R. maupasi**R. producta**R. terricola**Rhabditoides* Goodey, 1929*R. inermis*

SUBORDEN DIPLOGASTERINA Micoletzky, 1922

Superfamilia Diplogasteroidea Micoletzky, 1922

Familia Diplogasteroididae Filipjev *et* Schuurmans Stekhoven, 1941

- Rhabditoides* Rahm, 1928
R. stigmatus
- Familia Diplogasteridae Micoletzky, 1922
Diplogaster Schultze in Carus, 1857
D. rivalis
Diplogasteritus Paramonov, 1952
D. nudicapitatus
Metadiplogaster Meyl, 1961
M. graciloides
- Familia Neodiplogasteridae Paramonov, 1952
Fictor Paramonov, 1952
F. fictor
Monochoides Rahm, 1928
M. ruffoi
Oigolaimella Paramonov, 1952
O. carinata
Pristionchus Kreis, 1932
P. lheritieri
- Familia Tylopharyngidae Filipjev, 1934
Tylopharynx De Man, 1876
T. foetida
- SUBORDEN TERATOCEPHALINA Andrassy, 1974
Superfamilia Teratocephaloidea Andrassy, 1958
Familia Teratocephalidae Andrassy, 1958
Subfamilia Teratocephalinae Andrassy, 1958
Teratocephalus De Man, 1876
T. costatus
T. dadayi
T. palustris
T. subvexus
T. terrestris
- Subfamilia Metateratocephalinae Eroshenko, 1973
Metateratocephalus Eroshenko, 1973
M. crassidens

Appendix II. — Species list of rhabditid nematodes found in peninsular Spain and Balearic Islands

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|--------------------------------------|---|--|
| <i>Acrobeles ciliatus</i> | <i>Eucephalobus cornis</i> | <i>Pseudacrobeles (Bunobus) loofi</i> |
| <i>Acrobeles complexus</i> | <i>Eucephalobus mucronatus</i> | <i>Pseudacrobeles (Bunobus) pseudolatus</i> |
| <i>Acrobeles elaboratus</i> | <i>Eucephalobus oxyuroides</i> | <i>Pseudacrobeles (Pseudacrobeles) teres</i> |
| <i>Acrobeles singulus</i> | <i>Eucephalobus paracormutus</i> | <i>Rhabditella pseudoelongata</i> |
| <i>Acrobeloides buetschlii</i> | <i>Eucephalobus striatus</i> | <i>Rhabditoides stigmatus</i> |
| <i>Acrobeloides nanus</i> | <i>Fictor fictor</i> | <i>Rhabditis axei</i> |
| <i>Acrolobus emarginatus</i> | <i>Heterocephalobus bisimilis</i> | <i>Rhabditis longicaudata</i> |
| <i>Acromoldavicus skrjabini</i> | <i>Heterocephalobus elongatus</i> | <i>Rhabditis maupasi</i> |
| <i>Bunonema multipapillatum</i> | <i>Heterocephalobus latus</i> | <i>Rhabditis producta</i> |
| <i>Bunonema penardi</i> | <i>Mesorhabditis spiculigera</i> | <i>Rhabditis terricola</i> |
| <i>Bunonema reticulatum</i> | <i>Metadiplogasteroides graciloides</i> | <i>Rhabditoides inermis</i> |
| <i>Bunonema richtersi</i> | <i>Metateratocephalus crassidens</i> | <i>Rhabditophanes schneideri</i> |
| <i>Bunonema tuerkorum</i> | <i>Monochoides ruffoi</i> | <i>Stegelletina devimucronata</i> |
| <i>Bursilla paucipapillata</i> | <i>Oigolaimella carinata</i> | <i>Stegelletina similis</i> |
| <i>Cephalobus labiatus</i> | <i>Panagrolaimus facetus</i> | <i>Teratocephalus costatus</i> |
| <i>Cephalobus parvus</i> | <i>Panagrolaimus hygrophilus</i> | <i>Teratocephalus dadayi</i> |
| <i>Cephalobus persegnis</i> | <i>Panagrolaimus rigidus</i> | <i>Teratocephalus palustris</i> |
| <i>Cephalobus troglophilus</i> | <i>Panagrolaimus tigrodon</i> | <i>Teratocephalus subvesus</i> |
| <i>Cervidellus cervus</i> | <i>Paracrobeles psammophilus</i> | <i>Teratocephalus terrestris</i> |
| <i>Cervidellus nefyasiensis</i> | <i>Paroigolaimella bernensis</i> | <i>Tylopharynx foetida</i> |
| <i>Cervidellus vexilliger</i> | <i>Pellioiditis pelliio</i> | |
| <i>Chiloplacus minimus</i> | <i>Pellioiditis pellioides</i> | |
| <i>Chiloplacus propinquus</i> | <i>Pelodera punctata</i> | |
| <i>Chiloplacus symmetricus</i> | <i>Pelodera strongyloides</i> | |
| <i>Cruzema tripartitum</i> | <i>Pelodera teres</i> | |
| <i>Cephaloboides curvicaudata</i> | <i>Phasmarhabditis papillosa</i> | |
| <i>Diplogaster rivalis</i> | <i>Poikilolaimus oxycerca</i> | |
| <i>Diplogasteritus nudicapitatus</i> | <i>Pristionchus lheritieri</i> | |
| <i>Diploscapter coronatus</i> | <i>Protorhabditis filiformis</i> | |
| <i>Drilocephalobus coomansi</i> | <i>Protorhabditis tristis</i> | |