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Updated catalogue of hydrozoans of the Iberian Peninsula and Balearic Islands, with remarks on zoogeography and affinities*

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SUMMARY: The first catalogue including all the hydrozoan species from the Iberian Peninsula, Balearic Islands and the neighbouring Alboran Island has been made. Species distribution are catalogued following political regions along the Iberian coasts. Zoogeographical affinities are shown at various levels. The significance of the dispersive stage of the hydrozoan life cycle is considered. Affinities of the hydrozoans species in the different regions are also discussed.

Key words: Hydrozoa, catalogue, Zoogeography, affinities, Iberian Peninsula.

INTRODUCTION

Knowledge of the hydrozoan fauna of the Iberian Peninsula and Balearic Islands started at the beginning of the present century (Rioja, 1905, Motz-Kossowska, 1905, Rodríguez-Rosillo, 1914). Many studies have been carried out in different regions of this area, mainly during the last twenty years; most of them have been doctoral theses (García-Carrascosa, 1981; Gili, 1986; Roca, 1986; Ramil, 1988; Alvarez, 1993 and Altuna, 1994), later partially or fully published. In these works, checklists from the different geographical regions were provided, with taxonomic and/or ecologic studies of their faunas.

The first checklist of hydrozoans from the Peninsula was made by Rioja (1905). Later, García-Carrascosa (1981) made a list of Iberic Mediterranean hydroids.

The present updated catalogue includes 289 species from the Iberian Peninsula, Balearic Islands and the neighbouring Alboran Island. Original records from the south of the Peninsula are also included. All species are listed with their known distributions in the various regions, the references where in they were cited, and the names used in the records. The Iberian Peninsula is divided into 10 regions (Fig. 1). Their limits are based on the areas covered by the different works along the Peninsula. The adoption of these limits is for practical reason, and is not implied as reflecting true zoogeographical regions.

The present work is a first catalogue for the elaboration of the volume dedicated to the hydrozoan fauna of the Iberian Peninsula, within the research programme "Fauna Ibérica".

The species are included into zoogeographical groups based and modified from Boero and

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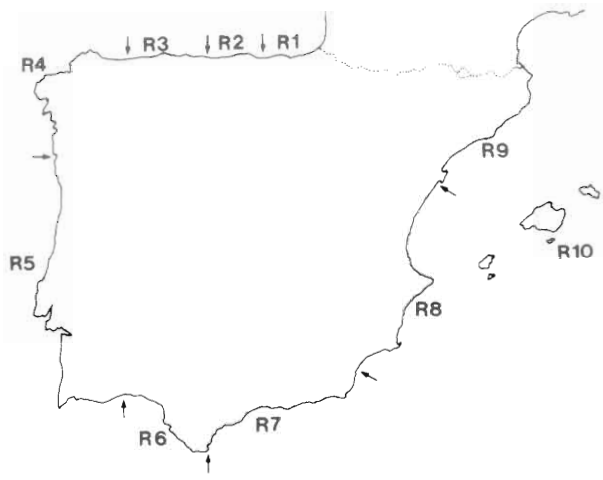

FIG. 1. – Distribution of the regions considered in the catalogue along the Iberian Peninsula coasts.

Bouillon (1993). In addition, some comments about the faunistic composition of the different Iberian regions are provided.

In the catalogue, we follow the nomenclature proposed by Bouillon *et al.* (1992) for the higher taxa.

METHODS

All known records of hydrozoans from the Peninsula have been included. However, incomplete records as those from García San Nicolás (1941), who did not give localities, or some doubtful records without descriptions from Rioja (1905), were not taken into account.

The area considered was limited by the parallels 44ºN and 36ºN, and by the meridians 11ºW and 5ºE aproximately. This area was limited into 10 different regions (Fig. 1). These are: R1= Basque Country; R2= Santander; R3= Asturias; R4= Galicia; R5= Portugal; R6= Gulf of Cádiz; R7= Mediterranean Andalusian coast. R8= Levante; R9= Catalonia and R10= Balearic Islands. The Strait of Gibraltar has been divided in two regions, Atlantic and Mediterranean. The "Atlantic" region (R6), is delimited by the Gulf of Cádiz to the west, and includes Tarifa Island in the east. The "Mediterranean" region (R7) includes Algeciras Bay in the west and the Gata Cape in the east.

The zoogeographical groups adopted are based on Boero and Bouillon (1993). They are: M, Mediterranean-endemic; A, Atlantic; AM, Atlantic and Mediterranean; B, Boreal and Mediterranean; B', Boreal; TA, Tropical-Atlantic and Mediterranean; TA', Tropical-Atlantic; IP, Indo-Pacific and Mediterranean; IP', Indo-Pacific; CT, Circumtropical; C, Cosmopolitan; X, unknown.

The life-cycle patterns are considered in the different species, and these are based on and modified from Boero and Bouillon (1993) as follows: g, fixed gonophores; mg, liberable medusoids or swimming gonophores; m, medusae; "?", doubtful.

The Bray-Curtis similarity index was applied, to determine affinities between the different areas. Computer programs such as Quattro Pro, and P.R.I.M.E.R. (Plymouth Rutines In Multivariante Ecological Research) were used for calculations.

RESULTS

The number of hydrozoan species recorded from the Iberian Peninsula is 289: 76 Anthomedusae, 155 Leptomedusae, 2 Limnomedusae, 10 Narcomedusae, 13 Trachymedusae, 8 Physonectae, 1 Cystonectae and 24 Calycophorae. There were no records of Actinulidae and Laingiomedusae.

For each region, all recorded species have been considered (Table 1). Each region is inhabited by about 100 species, except R2, R5 and R7. The low number of records in these last regions is probably due to insufficient sampling (the case in R5) or to

TABLE 1. – Number of species belonging to the different Orders of Hydrozoans recorded in the different regions of the Iberian Peninsula.

	Regions									
	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10
Anthomedusae	25	11	17	22	12	17	23	8	46	25
Leptomedusae	89	37	69	66	53	78	65	78	83	61
Limnomedusae	0	0	0	1	0	1	2	1	1	1
Narcomedusae	1	1	1	1	0	2	2	3	6	2
Trachymedusae	2	0	3	3	2	5	6	6	9	3
Physonectae	0	0	2	1	0	0	0	4	8	0
Cystonectae	1	1	0	0	0	1	0	0	1	0
Calycophorae	0	0	8	6	0	2	2	8	21	8

TABLE 2. – Number of species belonging to the different zoogeographical groups (the Class, Subclasses and Orders are shown). M, Mediterranean endemic; A, neighbouring atlantic not present in Mediterranean sea; AM, neighbourig atlantic and Mediterranean; B, Boreal and Mediterranean; B', Boreal; TA, Tropical-Atlantic and Mediterranean; TA' Tropical-Atlantic; IP, Indo-Pacific and Mediterranean; IP', Indo-Pacific; CT, Circumtropical; C, Cosmopolitan; X, unknown.

	Zoogeographical groups												
	M	A	AM	B	B'	TA	TA'	IP	IP'	CT	C	X	Total
Hydrozoa	21	8	25	25	12	28	5	12	1	58	80	14	289
Hydroidomedusae	20	8	25	25	12	28	5	12	1	53	54	13	256
Siphophorae	1	0	0	0	0	0	0	0	0	5	26	1	33
Anthomedusae	10	1	5	11	4	5	0	3	0	26	9	2	76
Leptomedusae	7	7	19	13	8	21	4	7	1	17	41	10	155
Limnomedusae	0	0	0	1	0	1	0	0	0	0	0	0	2
Narcomedusae	3	0	1	0	0	0	0	2	0	3	1	0	10
Trachymedusae	0	0	0	0	0	1	1	0	0	7	3	1	13
Physonectae	0	0	0	0	0	0	0	0	0	1	7	0	8
Cystonectae	0	0	0	0	0	0	0	0	0	0	1	0	1
Calycophorae	1	0	0	0	0	0	0	0	0	4	18	1	24

the small size of the region (R2). But the different nature of the substrates in the regions around the Iberian Peninsula determines in some cases the specific richness: hard bottoms have more species than soft ones. However, this does not explain the low number of records of some pelagic groups.

R1 presents the highest number of Leptomedusae and the same occurs in R9 for Anthomedusae. The rest of the Orders are much better represented in R9 than in any other area. This may be due to the accurate studies on planktonic and pelagic hydrozoans carried out in this region.

The Class, its Subclasses, and the most abundant Orders, were separately studied to show the zoogeographical composition of the different hydrozoan species:

* Class Hydrozoa (Table 2). Cosmopolitan species are the most abundant, followed by circumtropical ones. The group including the Mediterranean endemic, Mediterranean-Atlantic and neighbouring Atlantic species, as a zoogeographical group around the Peninsula, is the next most important group. If considered separately, only Mediterranean species are more numerous than only Atlantic ones. The numbers of boreal and Tropical-Atlantic species are very similar.

* Subclasses Hydroidomedusae and Siphonophorae (Table 2). In the Hydroidomedusae the percentages are similar to those obtained for the whole class. A lower percentage can only be noted in the cosmopolitan species. In the Subclass Siphon-ophorae most of the species are cosmopolitan and widely distributed (CT). There were not any Atlantic or boreal species. This may be due to the different collecting efforts between the regions.

* Orders Anthomedusase and Leptomedusae (Table 2). Both Orders show a high percentage of species with wide distribution (C+CT), but whereas the Anthomedusae have a high number of circumtropical species, the Leptomedusae are more cosmopolitan. The higher number of cosmopolitan species in Leptomedusae agrees with the data obtained by Boero and Bouillon (1993) from the Mediterranean Sea. They also reported that cosmopolitan species with fixed gonophores are more numerous than those with medusae.

Considering the zoogeographical groups around the Iberian Peninsula (AM+A+M), the Antho- and Leptomedusae have similar numbers of species. But, when considered separately, they are very different, because of the high number of Mediterranean endemics in the Anthomedusae; while Leptome-dusae are mainly Atlantic-Mediterranean.

The Anthomedusae present a higher Boreal affinity than Leptomedusae, while these are represented by similar percentages in Boreal and Circumtropical regions.

Table 3 shows the number of species in the different zoogeographical groups according to their life-cycle patterns. Species with unknown cycle are not included in the table. In the Class Hydrozoa, two artificial groups are made. A first one with those Orders with benthic stage (Anthomedusae excepting the Superfamily Porpitoidea, Leptomedusae, and Limnomedusae), and a second one, that includes the rest of the Orders and the Superfamily Porpitoidea, without a benthic stage. In the first group, the number of species with fixed gonophores, liberable medusoids or swimming gonophores, and medusae, are shown. In this way, there can be

TABLE 3. – Number of species in the different zoogeographical groups according to their life-cycles patterns. g, fixed gonophores; mg, liberable medusoids or swimming gonophores; m, medusae.

Zoogeographical groups	Hydrozoa	Orders with a benthic stage			Orders without a benthic stage
		Anthomedusae	Leptomedusae	Limnomedusae	
M	12g 3mg 6m	6g 2mg 2m	5g 1mg 1m	-	1g 3m
A	8g	1g	7g	-	-
AM	18g 7m	1g 4m	17g 2m	-	1m
B	12g 3mg 10m	4g 1mg 6m	8g 1mg 4m	1mg	-
B'	11g 1mg	3g 1mg	8g	-	-
TA	16g 1mg 11m	1g 1mg 3m	15g 6m	1m	1m
TA'	4g 1m	-	4g	-	1m
IP	7g 1mg 4m	2g 1m	5g 1mg 1m	-	2m
IP'	1g	-	1g	-	-
CT	23g 4mg 31m	7g 1mg 16m[1]	11g 3mg 3m	-	5g 12m[2]
C	63g 1mg 16m	7g 2m	30g 1mg 10m	-	26g 4m
X	9g 1mg 4m	1g 1m	7g 1mg 2m	-	1g 1m
Total	184g 15mg 90m	33g 6mg 35m[1]	118g 8mg 29m	1mg 1m	33g 25m[2]

[1] Here are excluded the two members of the superfamily Porpitoidea, because the absence of a benthic phase.
[2] Here are included the two members of the superfamily Porpitoidea.

noticed a general prevalence of fixed gonophores over medusae in this group. In the Anthomedusae, there is not a general dominant trend of any stage. However, the prevalence of species with medusae in the circumtropical group and with fixed gonophores in the Mediterranean endemics and cosmopolitan ones, is significant. In the Order Leptomedusae the number of species with fixed gonophores is clearly higher in all zoogeographical groups.

In the rest of the orders, fixed gonophores are more numerous than medusae. This is due to the order Siphonophorae, with pelagic or planktonic colonies, not releasing medusae. The Narcomeduase and Trachymedusae all have medusae, and the two genera belonging to the family Porpitidae, are free colonies that release medusae.

Figure 2A shows Bray-Curtis similarities between the regions, all species being considered. Region 2 is the most different in comparison with the other regions. This may be due to the few records in R2. Two groups can be distinguished. One including Mediterranean regions (R7, R8, R9 and R10), and the other the Atlantic regions (R1, R3, R4, R5 and R6). However, the relations between neighbouring regions are not clear.

Only Bray-Curtis analysis excluding those species recorded in one region (due to harder effort in collecting, or to recently described species), and including R2 together with R1 (because of the few records in the former one), evidences a different situation. In figure 2C can again be seen both Mediterranean (R6, R7, R8, R9 and R10) and Atlantic (R1+R2, R3, R4 and R5) groups, and new subgroups inside these. This time R6 is present in the Mediterranean group. R6 is more related to R7, making a subgroup along the south of the Peninsula; and R8, R9 and R10 are another subgroup, where R8 and R9 are more related, conforming to the Mediterranean coast of the Peninsula, R10 (Balearic Islands) being a little different.

In the Atlantic group one subgroup can be observed with R5 and others with R1+R2, R3 and R4; where R3 and R4 are more related.

DISCUSSION

The zoogeographical affinities of the Iberian hydrozoan fauna are shown by this study to be similar to those demonstrated by Boero and Bouillon (1993) for the hydroidomedusa of the Mediterranean Sea. It can be noticed only that the Iberian Hydroidomedusae fauna is more cosmopolitan and that Mediterranean endemics are lower.

Around the Iberian Peninsula there are few species that are not present in the Mediterranean Sea (groups B', TA', A, and IP'). This is also in agreement with Boero and Bouillon (1993), who observed that almost 70% of the hydromedusan fauna in the Mediterranean Sea had been found in other areas. According to these authors, the Anthomedusae have more Mediterranean endemics than Leptomedusae, and a low number of Iberian Anthomedusae species are not found in this sea.

Picard (1958) made a list of 191 species of Hydromedusae from the Mediterranean and 43 of them (22,5%) were endemic species. Boero and

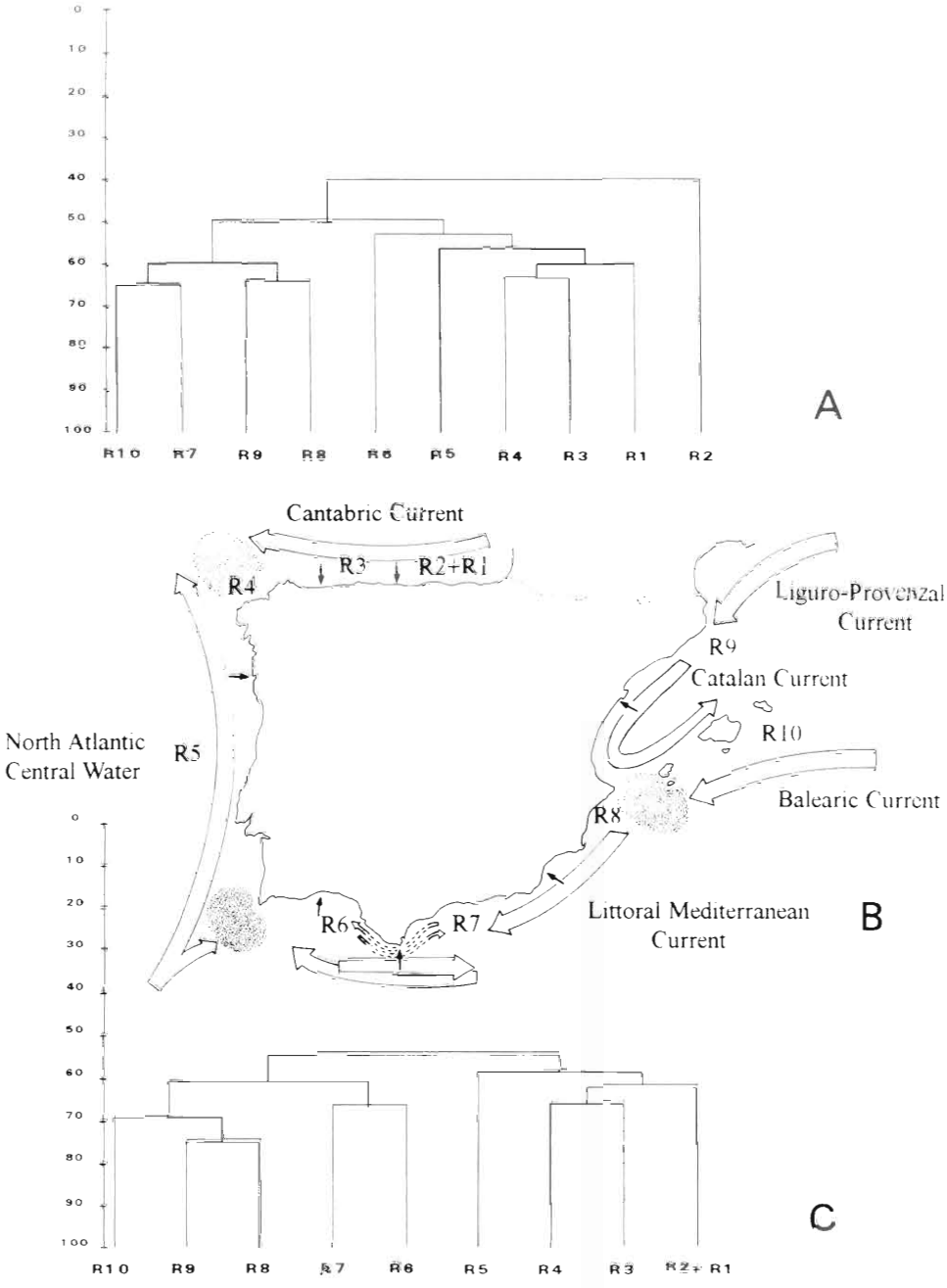

FIG. 2. – A. Bray-Curtis similarities between the regions, all species being considered. B. General current patterns around the Iberian Peninsula. C. Bray-Curtis similarities excluding those species that only were recorded from a single region.

Bouillon (1993) listed 346 Hydromedusae species and 67 (19,4%) of these are endemic to the Mediterranean Sea. Around the Iberian Peninsula, only 20 (7,81%) out of 256 hydromedusae are Mediterranean endemics. This difference in percentage may be due to further studies having been make recently in neighbouring areas to the Mediterranean, or could be the result of a progressive colonization through the Strait of Gibraltar.

Along Iberian coasts 12 (4,68%) Hydroidomedusae are Indo-Pacific (IP), and only one Indo-Pacific species (IP*) is not present in the Mediterranean Sea. This may follow from Lessepsian migration (through the Suez Canal). However, according to Boero and Bouillon (1993), the absence of information about the hydromedusan fauna in the eastern Mediterranean before the opening of this waterway make it difficult to confirm this statement.

Besides, the record of the single Indo-Pacific species not present in the Mediterranean, *Zygophylax sibogae*, is very recent (Altuna and Alvarez, 1994), and it is also the first for the Atlantic Ocean and the European waters; so this species might occur in the Mediterranean.

If the British (Cornelius, 1990, 1995), and the Iberian Peninsula hydromedusan fauna are compared, the following can be noticed: in the Order Leptomedusae the zoogeographical composition is similar, excepting the number of boreal species, that is higher in the British Isles; and Mediterranean and neighbouring Atlantic species, logically higher in the Iberian Peninsula; in the Order Anthomedusae there are more differences, because this Order is boreal in its majority in the British Isles, whereas in the Iberian Peninsula it is partially related with boreal, Mediterranean and neighbouring atlantic regions.

Rees and White (1966) and recently Cornelius (1992a) provided checklists of Hydroidomedusae from Azores. Both inventories summarise aproximately 60 species (most of them belonging to the Orders Anthomedusae and Leptomedusae). Comparison of the Hydroidomedusae Azores fauna with the Ibero-Balear one must be taken carefully, due to the unequal number of species considered (about 256 being recorded in the present catalogue). Wide distribution groups (C and CT) are best represented in the Azores fauna (about 54 % and 12 % respectively) than in the Ibero-Balear one (about 20 % in each category). Besides, it can be noticed that the Boreal group is less important (B+B' about 5 %) than the Atlanto-Mediterranean one (AM about 12.3 %) in the Azores fauna; while in the Iberian fauna these groups show an inverse situation (B+B' is about 15 % and AM is about 10 %).

Hydrozoan records from Atlantic coast of Morocco and from the Canary Islands have been provided respectively by Patriti (1970) and Izquierdo *et al.* (1986a, 1986b and 1990). Records from the Canary Islands are restricted to the Orders Anthomedusae and Leptomedusae. Hydroidomedusae from both inventoires summarize about 101 species. The general composition of this fauna is similar to that of the Azores. The Cosmopolitan group is the best represented (51 %), followed by the Circum-Tropical one (about 19 %). Atlanto-Mediterranean species (AM about 12 %) are more numerous than boreal ones (B+B' about 3 %), as occurs in the Azores. The fact that the number of cosmopolitan species in the Azores and in the Mauritanian area is higher than in the Iberian Peninsula is due to the Order Leptomedusae, with a high number of records compared with the other Orders. The high number of Atlanto-Mediterranean species is due as well to the contribution of the Order Leptomedusae, that is more prevalent in this zoogeographic group than in the Boreal one. Thus, the composition of the different zoogeographical groups is similar in these areas and in the Iberian Peninsula, but the different number of records between the regions, and the fact that these are restricted to one or two Orders in the Azores and Mauretanian area, account for the differences.

Among Iberian Leptomedusae, cosmopolitan species with fixed gonophores were clearly more numerous than those with medusae. Anthomedusae were the same, however, the Circum-Tropical group shows a dominance of medusae. In the rest of the Orders, the species of which are mainly cosmopolitan, the balance is different, and a similar evaluation is not possible, because Siphonophorae have fixed gonophores, but their colonies are free, and show a similar value to medusae in the dispersive sense. Thus, after comparison of the Orders with benthic phase with those lacking it, it can be noticed that the cosmopolitanism does not depend on the presence of medusae or free colonies in their life cycle, as already noted by Cornelius (1981,1992a, 1992b) and Boero and Bouillon (1993).

Concerning the faunistic affinity between the different regions, in figure 2C two big groups can be observed (Mediterranean and Atlantic), and four subgroups of high similarity. Figure 6B shows the general current patterns around the Iberian Peninsula, based on Fraga (1981), Saunders (1982), Haynes and Barton (1990), La Violette *et al.* (1990), Font *et al.* (1988), Millot (1987), and Daniault *et al.* (1994). The movement patterns of the water are characterized by some areas of interruption (shadowed areas), that make barries to the transport of the species. This may explain the four groups of affinity.

In the Strait of Gibraltar, there is a Mediterra-nean outgoing surface current that is produced during the low tide and follows the south of the Peninsula. This, and the deep Mediterranean outgoing current, influences in the situation of R6 (most of the records from Ramil and Vervoort, 1992), that is in the Mediterranean group. Besides, most of the littoral records in R6 (Medel, in prep.) becomes from areas near to the Strait of Gibraltar, due to abundance of hard substrates there, and this also contributes to the higher similarity of R6 with the Mediterranean group than with the Atlantic ones (Fig. 2C).

The interruption area in R5 can also contribute to this situation. The regions in the south of the Peninsula, R6 and R7, are a subgroup of the Mediterranean group. This is probably due to their special situation in the Strait of Gibraltar. These regions (R6 + R7) are a zoogeographically highly interesting area from the point of view of exchange of species between Atlantic and Mediterranean waters. Villanueva and Gutiérrez-Mas (1994) give further imformation about the hydrodinamics of the Gulf of Cádiz and the exchange of water masses through the Strait of Gibraltar. Moreover, the geographic limit between these two water masses are not necessarily the natural limits of the possible distribution of Mediterranean species. Zoogeographical studies carried out in the Strait of Gibraltar with different group of marine benthic invertebrates showed a high affinity of this area with the fauna of the Western Mediterranean (López de la Cuadra and García-Gómez, 1994; López-González, 1993; Carballo, 1994; Naranjo, 1995). The regions R8, R9 and R10 are the second Mediterranean subgroup. In this influence of the Balearic Current in R10 results this region being separated from R8 and R9. In the Atlantic region, the Cantabric Current affects specially R1+R2, R3 and R4. R4 could be in the transitional area between R3 and R5, but possibly the few records in R5 compared with the rest of the group means that this region should be considered a distinct subgroup.

The most important contributions to the hydrozoan research in the Iberian Peninsula and Balearic islands are relatively recent, mainly in the last twenty-five years (see introduction), but a high number of species is already known. Currently, the study of the Class is well developed in almost all the regions. In this sense, Portuguese coast (R5) need a harder collecting effort in the future, previous works being few and there are not updated checklists of hydrozoan species. Besides, many localities in this region are unexplored.

In the whole Iberian Peninsula and Balearic area, research has been on taxonomic and faunistic aspects. Ecological and biological works are fewer and mainly from the Mediterranean coast. Thus, a great amount of information about the life cycle of the hydrozoan Iberian fauna still remains unknown. Also, those groups with benthic colonies are better known than those with pelagic or planktonic ones. There is no records of the Orders Actinulidae and Laingionedusae from the Peninsula, but records of them from the Mediterranean Sea are few too. Although fundamental bases on the Hydrozoans research are established in the Iberian Peninsula, it would be important to cover the mentioned aspects in the future. Certainly, further studies will be carried out within the research programme "Fauna Iberica" which will contribute to the knowledge of the Iberian hydrozoan fauna.

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UPDATED CATALOGUE OF HYDROZOANS FROM THE IBERIAN PENINSULA AND BALEARIC ISLANDS

Class HYDROZOA Owen, 1843
Subclass Hydroidomedusae Claus, 1877

Order Anthomedusae Haeckel, 1879

Suborder Filifera Kühn, 1913

Superfamily Bougainvillioidea Lütken, 1850

Family Bougainvilliidae Lütken, 1850

Bimeria Wright, 1859

Bimeria vestita Wright, 1859 (C:g)
R1: Altuna, 1994a.
R6: Medel, in prep.
R7: Medel, in prep.
R9: De Buen, 1905; Motz-Kossowska, 1905 (both as *Perigonimus*); Gili, 1986.
R10: Rodríguez-Rosillo, 1914 (as *Perigonimus*).

Bougainvillia Lesson, 1830

Bougainvillia ramosa (Van Beneden, 1844) (CT:m)
R1: Isasi, 1985; Isasi and Saiz, 1986; Altuna and García-Carrascosa, 1990; Altuna, 1994a.
R3: Moreno and Fernández-Alcaraz, 1984a; Alvarez, 1993 (as cf.).
R4: Chas and Rodríguez, 1977; Urgorri and Besteiro, 1983; Ramil, 1988; Gili *et al*., 1991.
R6: Medel, in prep.
R7: Altuna, 1992 (as *B. muscus*); Medel, in prep.
R9: Gili, 1979; Camp and Ros, 1980; Gili, 1981; Gili, 1982; Gili *et al*., 1984; Gili and Castelló, 1985; Gili, 1986.
R10: De Buen, 1905; Motz-Kossowska, 1905; Rodríguez-Rosillo, 1914 (all also as *B. fruticosa*).

Dicoryne Allman, 1859

Dicoryne conferta (Alder, 1856) (B:mg)
R1: Aguirrezabalaga *et al*., 1987; Aguirrezabalaga *et al*., 1988; Altuna and García-Carrascosa, 1990; Altuna, 1994a.
R2: Rioja, 1905.
R3: Alvarez, 1993.
R10: De Buen, 1905; Motz-Kossowska, 1905.

Dicoryne conybeari (Allman, 1864) (B:g)
R2: Rioja, 1905 (as *Heterocordyle conybeare*); Rodríguez-Rosillo, 1914 (as *Heterocordyle*).
R9: De Buen, 1905; Motz-Kossowska, 1905.
R10: De Buen, 1905; Motz-Kossowska, 1905.

Garveia Wright, 1859

Garveia franciscana (Torrey, 1902) (CT:g)
R9: Gili, 1986.

Garveia grisea (Motz-Kossowska, 1905) (M:g)
R6: Medel, in prep.

Garveia nutans (Wright, 1859) (B:g)
R6: Ramil and Vervoort, 1992a.

Koellikerina Kramp, 1939

Koellikerina fasciculata (Péron and Lesueur, 1809) (AM:m)
R7: Ranson, 1936.
R9: Ranson, 1936; Gili, 1986; Gili *et al*., 1987a; Gili *et al*., 1988.

Lizzia Forbes, 1846

Lizzia blondina Forbes, 1848 (B:m)
R3: Moreno and Fernández-Alcaraz, 1984a.
R7: Goy, 1982.
R9: Gili, 1986; Castelló, 1986; Gili *et al*., 1987a; Gili *et al*., 1988.
R10: Riera and Blasco, 1967.

Pachycordyle Weismann, 1883

Pachycordyle neapolitana Weismann, 1883 (TA:mg)
R10: De Buen, 1905; Motz-Kossowska, 1905 (both as *Cordylophora annulata* and *Perigonimus*); Rodríguez-Rosillo, 1914 (as *Perigonimus*).

Thamnostoma Haeckel, 1879

Thamnostoma eidaritis (Weismann, 1883) (M:m?)
R9: De Buen, 1905; Rodríguez-Rosillo, 1914 (both as *Perigonimus*).
This species is probably the polyp phase of *Koellikerina fasciculata* (Péron and Lesueur, 1909) Petersen and Vannucci, 1960.

Thamnostoma dibalium (Busch, 1851) (M:m)
R9: Gili, 1986; Riera *et al*., 1986 (as *Thamnostoma dibalia*).

Family Cytaeidae L. Agassiz, 1862

Cytaeis Eschscholtz, 1829

Cytaeis tetrastyla Eschscholtz, 1829 (CT:m)
R7: Goy, 1982.

Perarella Stechow, 1922

Perarella schneideri (Motz-Kossowska, 1905) (M:mg)
R9: Gili, 1986; Llobet *et al*., 1991.
R10: De Buen, 1905; Motz-Kossowska, 1905; Rodríguez-Rosillo, 1914 (all as *Perigonimus Schneideri*).

Superfamily Clavoidea McCrady, 1859

Family Clavidae McCrady, 1859

Clava Gmelin, 1791

Clava multicornis (Forskål, 1775) (C:g)
R1: Aguirrezabalaga *et al*., 1984; Altuna and García-Carrascosa, 1990; Altuna, 1994a.
R2: Rioja, 1905; Rodríguez-Rosillo, 1914 (both as *C. squamata*).
R4: Estrada, 1979; Ramil, 1988.
R5: Da Cunha, 1944 (as *Clava* sp.).
R9: Gili, 1982; Gili *et al*., 1984; Gili, 1986.
R10: Roca and Moreno, 1985; Roca, 1986.

Cordylophora Allman, 1844

Cordylophora pusilla Motz-Kossowska, 1905 (M:g)
R9: Gili *et al*., 1984; Gili and Castelló, 1985; Gili, 1986; García-Rubíes, 1987.
R10: Roca, 1986; Roca, 1987.

Corydendrium Van Beneden, 1844

Corydendrium parasiticum (Linnaeus, 1767) (CT:g)
R10: Motz-Kossowska, 1905; Rodríguez-Rosillo, 1914; Roca, 1986.

Merona Norman, 1865

Merona cornucopiae (Norman, 1864) (CT:g)
R1: Aguirrezabalaga *et al*., 1988; Altuna and García-Carrascosa, 1990; Altuna, 1994a.
R3: Alvarez, 1993.
R4: Ramil, 1988.
R9: Gili, 1986.

Merona ibera Medel, García-Gómez and Bouillon, 1993 (X:g)
R7: Medel *et al*., 1993; Medel, in prep.

Turritopsis McCrady, 1859

Turritopsis nutricula McCrady, 1859 (CT;m)
R6: Ramil and Vervoort, 1992a; Medel, in prep.
R10: De Buen, 1905; Motz-Kossowska, 1905 (both as *Cordylophora dohrni*).

Superfamily Eudendrioidea Agassiz, 1862

Family Eudendriidae Agassiz, 1862

Eudendrium Ehrenberg, 1834

Eudendrium album Nutting, 1898 (B':g)
R1: Altuna and García-Carrascosa, 1990; Altuna, 1994a.
R4: Estrada, 1979; Ramil, 1988.

Eudendrium armatum Tichomiroff, 1887 (M;g)
R7: Medel, in prep.
R9: Gili, 1986.
R10: Gili and García-Rubíes, 1985 (in text).

Eudendrium capillare Alder, 1856 (C:g)
R1: Isasi, 1985; Isasi and Saiz, 1986; Altuna and García-Carrascosa, 1990; Altuna, 1994a.
R4: Polo *et al.*, 1979; Ramil, 1988.
R6: Ramil and Vervoort, 1992a; Medel, in prep.
R7: Medel, in prep.
R9: Maluquer, 1914; Gili, 1979; Gili, 1981; Gili, 1982; Gili *et al.*, 1984; Gili and Castelló, 1985; Gili, 1986; Llobet *et al.*, 1991.
R10: Motz-Kossowska, 1905; Gili and García-Rubíes, 1985; Roca and Moreno, 1985; Roca, 1986.

Eudendrium carneum Clarke, 1882 (CT:g)
R9: Gili, 1986.

Eudendrium glomeratum (Motz-Kossowska, 1905) (CT:g)
R1: Altuna, 1994a.
R10: Motz-Kossowska, 1905 (as *E. ramosum*); Roca, 1986.

Eudendrium motzkossowskae Picard, 1951 (TA:g)
R9: Motz-Kossowska, 1905 (as *E. simplex*); Gili and García-Rubíes, 1985; Gili, 1986; García-Rubíes, 1987; Llobet *et al.*, 1991.

Eudendrium racemosum (Cavolini, 1785) (IP:g)
R2: Rioja, 1905.
R7: García-Raso *et al.*, 1992; Medel, in prep.
R8: García-Carrascosa *et al.*, 1987.
R9: Rodríguez-Rosillo, 1914; Motz-Kossowska, 1905; Camp and Ros, 1980; Gili, 1982; Gili *et al.*, 1984; Gili and Castelló, 1985; Gili, 1986; Llobet *et al.*, 1991.
R10: Gili and García-Rubíes, 1985; Roca and Moreno, 1985; Roca, 1986.

Eudendrium rameum (Pallas, 1766) (C:g)
R5: Da Cunha, 1944.
R7: Templado *et al.*, 1986.
R8: García-Carrascosa *et al.*, 1987.
R9: Camp and Ros, 1980; Gili, 1982; Gili *et al.*, 1984; Gili, 1986.
R10: Gili and García-Rubíes, 1985.

Eudendrium ramosum (Linneaus, 1758) (C:g)
R3: Alvarez, 1993 (as *E.* cf. *ramosum*).
R4: Urgorri and Besteiro, 1983; Ramil, 1988.
R5: Da Cunha, 1944.
R6: Ramil and Vervoort, 1992a.
R8: García-Carrascosa *et al.*, 1987.
R9: Rodríguez-Rosillo, 1914; Gili, 1979; Camp and Ros, 1980; Gili, 1981; Gili, 1982; Gili *et al.* 1984.
R10: Roca, 1986.

Superfamily Hydractinoidea Van Beneden, 1841

Family Hydractiniidae Van Beneden, 1841

Hydractinia Van Beneden, 1841

Hydractinia aculeata (Wagner, 1833) (M;g)
R7: Medel, in prep.
R10: De Buen, 1905; Motz-Kossowska, 1905; Rodríguez-Rosillo, 1914.

Hydractinia echinata (Fleming, 1828) (B;g)
R2: Rioja, 1905; Rodríguez-Rosillo, 1914.
R3: Alvarez, 1993.
R4: Rioja, 1905; Rodríguez-Rosillo, 1914; Chas and Rodríguez, 1977; Estrada, 1979; Ramil, 1988.
R5: Nobre, 1931; Da Cunha, 1944.
R9: Gili, 1986.

Hydractinia fucicola (M. Sars, 1857) (AM:g)
R9: Gili *et al.*, 1984 (as *Podocoryne*).
R10: Barange and Gili, 1987 (as *Podocoryne*).
– There is ambiguity concerning the valid date of description: Gili *et al.* (1984) and Boero (1993) give 1857 while Motz-Kosswoska (1905) who referred the species to *Hydractinia*, gives 1856. The correct date is 1857.

Hydractoma Stechow, 1921

Hydractoma pruvoti (Motz-Kossowska, 1905) (M:g)
R10: De Buen, 1905; Motz-Kossowska, 1905 (both as *Hydractinia Pruvoti*).

Podocoryne M. Sars, 1846

Podocoryne carnea M. Sars, 1846 (C;m)
R1: Isasi, 1985; Isasi and Sáiz, 1986; Aguirrezabalaga *et al.*, 1986; Altuna and García-Carrascosa, 1990; Altuna, 1994a.
R2: Rioja, 1905; Rodríguez-Rosillo, 1914.
R3: Alvarez, 1993.
R4: Rioja, 1905; Rodríguez-Rosillo, 1914; Chas and Rodríguez, 1977; Ramil, 1988.
R5: Da Cunha, 1944 (as *Hydractinia*).
R6: Medel, in prep.
R7: Medel, in prep.
R8: García-Carrascosa *et al.*, 1987.
R9: Gili, 1979; Gili, 1981; Gili, 1982; gili *et al.*, 1984; Gili, 1986; Castelló, 1986; Gili *et al.*, 1987b; Gili *et al.*, 1988; Riera *et al.*, 1986.

Podocoryne hartlaubi Neppi and Stiasny, 1911 (AM:m)
R4: Gili *et al.*, 1991.

Podocoryne minima (Trinci, 1903) (AM;m?)
R9: Gili, 1986; Castelló, 1986; Gili *et al.*, 1988; Riera *et al.*, 1986.

Podocoryne minuta (Mayer, 1900) (X:m?)
R9: Gili, 1986; Gili *et al.*, 1988.

Stylactaria Stechow, 1921

Stylactaria inermis (Allman, 1872) (M:mg)
R9: Gili and Castelló, 1985; Gili, 1986; García-Rubíes, 1987 (all as *Stylactis*).

Stylactaria claviformis (Bouillon, 1965) (B':mg-g)
R4: Ramil, 1988 (as *Stylactis*).

Family Stylasteridae Gray, 1847

Stenohelia Saville-Kent, 1870.
Stenohelia maderensis (Johnson, 1862) (B':g)
R3: Alvarez, 1993.
R4: Zibrowius and Cairns, 1992.

Superfamily Pandeoidea Haeckel, 1879

Family Calycopsidae Bigelow, 1913

Bythotiara Günther, 1903
Bythotiara murrayi Günther, 1903 (CT;m)
R10: Ranson, 1936.

Family Pandeidae Haeckel, 1879

Amphinema Haeckel, 1879

Amphinema dinema (Péron and Lesueur, 1810) (CT;m)
R4: Ramil, 1988; Gili *et al.*, 1991.
R9: Gili, 1986; Gili *et al.*, 1988.

Amphinema rugosum (Mayer, 1900) (CT;m)
R1: Altuna, 1994a.

Leuckartiara Hartlaub, 1913

Leuckartiara octona (Fleming, 1823) (CT;m)
R1: Altuna, 1994a.
R2: Rioja, 1905 (as *Perigonimus repens*); Rodríguez-Rosillo, 1914.
R3: Alvarez, 1993.
R4: Ramil, 1988; Gili *et al.*, 1991.
R5: Da Cunha, 1944; Da Cunha, 1950 (both as *P. repens*).
R6: Billard, 1907.
R7: Templado *et al.* 1993.
R8: Vives, 1966.
R9: Motz-Kossowska, 1905; De Buen, 1905; Rodríguez-Rosillo, 1914 (all as *P. repens*); Gili, 1979; Gili, 1981; Gili, 1982 (as *P. repens*); Gili *et al.*, 1984 (as *P. repens*); Gili, 1986; Gili *et al.*, 1987b; Gili *et al.*, 1988.

Leuckartiara nobilis Hartlaub, 1913 (B;m)
R9: Gili, 1986.

Neoturris Hartlaub, 1913

Neoturris pileata (Forskål, 1775) (TA;m)
R4: Gili *et al.*, 1991.
R9: Gili, 1986; Gili *et al.*, 1987a; Gili *et al.*, 1988.

Pandea Lesson, 1843

Pandea conica (Quoy and Gaimard, 1827) (CT;m)
R7: Ranson, 1936.

Superfamily Rathkeoidea Russell, 1953

Family Rathkeidae Russell, 1953

Rathkea Brant, 1838

Rathkea octopunctata (M. Sars, 1835) (B;m)
R9: Gili, 1986; Riera *et al.*, 1986.

Suborder Capitata Kühn, 1913

Superfamily Acauloidea Rees, 1957

Family Candelabridae Stechow, 1921

Candelabrum de Blainville, 1830

Candelabrum cocksii (Vigurs, 1850) (B';g)
R4: Estrada, 1979 (as *C. phrygium*).
R6: Medel, in prep.

Superfamily Corynoidea Johnston, 1836

Family Cladonematidae Gegenbaur, 1856

Cladonema Dujardin, 1843

Cladonema radiatum Dujardin, 1843 (CT;m)
R1: Aguirrezabalaga *et al.*, 1987; Aguirrezabalaga *et al.*, 1988; Altuna and García-Carrascosa, 1990; Altuna, 1994a.
R6: Medel, in prep.
R10: Barangé and Gili, 1987.

Family Corynidae Johnston, 1836

Coryne Gaertner, 1774

Coryne pusilla Gaertner, 1774 (C;g)
R1: Altuna and García-Carrascosa, 1990; Altuna, 1994a.
R2: Rioja, 1905 (with "?" by the author); Rodríguez-Rosillo, 1914.
R4: Chas and Rodríguez, 1977.
R5: Da Cunha, 1944.
R8: García-Carrascosa *et al.*, 1987.
R9: Gili, 1982; Gili *et al.*, 1984; Gili, 1986; García-Rubies, 1987; Llobet *et al.*, 1991.

Coryne muscoides (Linnaeus, 1761) (B';g)
R1: Altuna and García-Carrascosa, 1990; Altuna, 1994a.
R3: Anadón, 1988.
R4: Chas and Rodríguez, 1977; Estrada, 1979; Ramil, 1988.
R5: Da Cunha, 1944 (as *C. vaginata*).
R6: Medel, in prep.
R7: García-Raso *et al.*, 1992; Medel, in prep.
R9: Gili, 1986.
R10: Roca and Moreno, 1985; Roca, 1986.

Dipurena McCrady, 1857

Dipurena halterata (Forbes, 1846) (CT;m)
R9: Gili, 1986.

Dipurena ophiogaster (Haeckel, 1877) (CT;m)
R3: Moreno and Fernández-Alcaraz, 1984a.

Sarsia Lesson, 1843

Sarsia eximia (Allman, 1859) (CT;m)
R1: Altuna and García-Carrascosa, 1990; Altuna, 1993a; Altuna, 1994a.

Sarsia gemmifera Forbes, 1848 (CT;m)
R3: Moreno and Fernández-Alcaraz, 1984a.
R8: Vives, 1966.
R9: Castelló, 1986; Gili, 1986; Riera *et al.*, 1986.

Sarsia producta (Wright, 1858) (TA;m)
R1: Altuna and García-Carrascosa, 1990; Altuna, 1993a; Altuna, 1994a.

Sarsia reesi (Vannucci, 1956) (TA;m)
R1: Altuna and García-Carrascosa, 1990; Altuna, 1993a; Altuna, 1994a.

Sarsia tubulosa (M. Sars, 1835) (C;m)
R1: Altuna, 1993a; Altuna, 1994a (both as cf.).
R4: Gili *et al.*, 1991.
R9: Gili, 1986; Riera *et al.*, 1986; Gili *et al.*, 1988.

Family Eleutheriidae Russell, 1953

Eleutheria Quatrefages, 1842

Eleutheria dichotoma Quatrefages, 1842 (B;m)
R1: Aguirrezabalaga *et al.*, 1984; Altuna, 1994a.
R3: Anadón, 1988.

Superfamily Tubularioidea Fleming, 1820

Family Corymorphidae Allman, 1872

Corymorpha M. Sars, 1835

Corymorpha nutans M. Sars, 1835 (B;m)
R9: Gili, 1981; Gili, 1986; Gili *et al.*, 1987a; Riera *et al.*, 1986.

Eucodonium? Hartlaub, 1907

Eucodonium brownei Hartlaub, 1907 (A;M;m)
R6: Goy, 1982.
R7: Goy, 1982.

Family Euphysidae Haeckel, 1879

Euphysa Forbes, 1848

Euphysa aurata Forbes, 1848 (CT;m)
R3: Moreno and Fernández-Alcaraz, 1984a.
R4: Gili *et al.*, 1991.
R9: Gili, 1986; Gili *et al.*, 1987a; Gili *et al.*, 1988.

Family Pennariidae Hincks, 1868

Pennaria Goldfuss, 1820

Pennaria disticha Goldfuss, 1820 (CT;mg)
R6: Medel, in prep.
R7: García-Raso *et al.*, 1992 (as *Halocordyle*).
R8: Rioja, 1905; Rodríguez-Rosillo, 1914 (both as *P. cavolini*); García-Corrales and Aguirre, 1985; García-Carrascosa *et al.*, 1987 (both as *Halocordyle*).
R9: Gili, 1986 (as *Halocordyle*).
R10: Roca and Moreno, 1985; Roca, 1986 (both as *Halocordyle*).

Family Paracorynidae Picard, 1957

Paracoryne Picard, 1957

Paracoryne huvei Picard, 1957 (M;g)
R9: Gili, 1986.

Family Tubulariidae Allman, 1864

Ectopleura L. Agassiz, 1862

Ectopleura dumortierii (Van Beneden, 1844) (B;m)
R3: Moreno and Fernández-Alcaraz, 1984a.
R4: Estrada, 1979; Ramil, 1988.
R5: Da Cunha, 1944 (as *Tubularia dumortieri*); Da Cunha, 1950.
R6: Medel, in prep.
R9: Gili, 1986; Castelló, 1986.

Hybocodon L. Agassiz, 1862

Hybocodon prolifer L. Agassiz, 1862 (IP;m)
R1: Altuna and García-Carrascosa, 1990.
R3: Moreno and Fernández-Alcaraz, 1984a.
R9: Gili, 1986; Gili *et al.*, 1987a; Gili *et al.*, 1988.

Rhabdoon Keferstein and Ehlers, 1861

Rhabdoon singulare (Vannucci and Soares, 1966) (CT;m)
R7: Goy, 1982.

Tubularia Linnaeus, 1758

Tubularia larynx Ellis and Solander, 1786 (C;g)
R1: Aguirrezabalaga *et al.*, 1988; Altuna and García-Carrascosa, 1990; Altuna, 1994a.
R4: Chas and Rodríguez, 1977; Ramil, 1988.
R5: Nobre, 1931; Da Cunha, 1944; Da Cunha, 1950.
R9: Motz-Kossowska, 1905; De Buen, 1905 (as *T. larynx*); Gili *et al.*, 1984; Gili, 1986.

Tubularia ceratogyne C. Pérez, 1912 (A;g)
R1: Aguirrezabalaga *et al.*, 1988 (as *T. indivisa*).
R5: Da Cunha, 1944 (as *T. indivisa*).
R6: Medel, in prep.

Tubularia crocea Agassiz, 1862 (CT;g)
R2: Rioja, 1905; Rodríguez-Rosillo, 1914 (both as *T. mesembryanthemum*).
R7: Medel, in prep.

Tubularia indivisa Linnaeus, 1758 (B;g)
R1: Altuna and García-Carrascosa, 1990; Altuna, 1994a.
R2: Rioja, 1905; Rodríguez-Rosillo, 1914.
R3: Lombas and Anadón, 1985.
R9: Motz-Kossowska, 1905.

Superfamily Porpitoidea Goldfuss, 1818

Family Porpitidae Goldfuss, 1818

Porpita Lamarck, 1801

Porpita porpita (Linnaeus, 1758) (CT;m)
R7: García-Raso *et al.*, 1992.

Velella Lamarck, 1801

Velella velella (Linnaeus, 1758) (CT;m)
R2: Rioja, 1905; Rodríguez Rosillo, 1914 (as *V. spirans*).
R4: Gili *et al.*, 1991.
R7: García-Raso *et al.*, 1992.
R9: Castelló, 1986; Gili, 1986; Riera *et al.*, 1986; Gili *et al.*, 1988.

Superfamily Zancleoidea Russell, 1953

Family Cladocorynidae Allman, 1872

Cladocoryne Rotch, 1871

Cladocoryne floccosa Rotch, 1871 (CT;g)
R1: Isasi, 1985; Isasi and Saiz, 1986; Altuna, 1994a.
R5: Da Cunha, 1944.
R6: Medel, in prep.
R7: Medel, in prep.
R9: Motz-Kossowska, 1905; Gili, 1986; García-Rubíes, 1987.
R10: Roca, 1986.

Family Zancleidae Gegenbaur, 1856

Zanclea Gegenbaur, 1856

Zanclea costata Gegenbaur, 1856 (CT;m)
R1: Aguirrezabalaga *et al.*, 1984; Altuna and García-Carrascosa, 1990; Altuna, 1994a.
R7: Goy, 1982.
R9: Gili, 1986; Castelló, 1986; Gili *et al.*, 1987a.

Order Leptomedusae Haeckel, 1886

Suborder Conica Broch, 1909

Infraorder Campanulinida Bouillon, 1984

Superfamily Campanulinoidea Hincks, 1868

Family Aequoreidae Péron and Lesueur, 1810

Aequorea Péron and Lesueur, 1810

Aequorea forskalea Péron and Lesueur, 1809 (B;m)
R2: Rioja, 1905; Rodríguez-Rosillo, 1914 (both as *A. Forskalina*).
R9: Gili, 1986 (as *A. aequorea*).
R10: Ranson, 1936.

Family Campanulinidae Hincks, 1868

Calycella Hincks, 1861

Calycella syringa (Linnaeus, 1767) (B;g)
R1: Altuna and García-Carrascosa, 1990; Altuna, 1994a.
R4: Ramil, 1988.
R5: Da Cunha, 1944.

Campomma Stechow, 1921

Campomma hincksii (Hartlaub, 1897) (B;g)
R4: Chas and Rodríguez, 1977 (as *Campanulina hincksi*); Ramil, 1988.
R9: Gili, 1982 (as *Campanulina*); Gili *et al.*, 1984; Gili and Castelló, 1985 (all as *C. hincksi*).

Cuspidella Hincks, 1866

Cuspidella costata Hincks, 1868 (C;g)
R1: Aguirrezabalaga *et al.*, 1988; Altuna and García-Carrascosa, 1990.
R8: García-Carrascosa, 1981.

Cuspidella humilis (Hincks, 1866) (CT;g)
R3: García-Corrales, 1979.
R8: García-Corrales, 1979.
R9: Gili, 1986.

Cuspidella grandis Hincks, 1868 (B':g)
R3: García-Corrales, 1979.
– *Cuspidella grandis* is tentatively considered to be the hydroid stage of *Cosmetira pilosella* Forbes, 1848, but there is still no absolute proof (Vervoort, pers. com.).

Egmundella Stechow, 1921

Egmundella grimaldii Leloup, 1940 (A:g)
R1: Leloup, 1940.
R3: Alvarez, 1993.

Lafoeina G.O. Sars, 1874

Lafoeina tenuis G.O. Sars, 1874 (IP:g)
R1: Altuna and García-Carrascosa, 1990 (as *L. vilaevelebeti*); Altuna, 1994a (as gr.).
R3: Alvarez, 1993; García-Corrales, 1979 (as *Egmundella amirantensis*)
R4: Ramil, 1988.
R7: Medel, in prep.
R8: García-Carrascosa, 1981 (as *L. vilaevelebeti*); García-Corrales, 1979 (as *E. amirantensis*).
R9: Gili, 1986.
R10: Roca, 1986 (as *E. amirantensis*)

Opercularella Hincks, 1868

Opercularella lacerata (Johnston, 1847) (B:g)
R1: Altuna, 1994a.
R8: García-Carrascosa, 1981.

Opercularella panicula (G.O. Sars, 1874) (CT:g)
R1: Aguirrezabalaga *et al.*, 1988; Aguirrezabalaga *et al.*, 1989; Altuna and García-Carrascosa, 1990; Altuna, 1994a.
R2: Rioja, 1905; Rodríguez-Rosillo, 1914 (both as *Campanulina panicula*).
R3: Alvarez, 1993.
R4: Ramil, 1988; Ramil and Iglesias, 1988b.
R6: Ramil and Vervoort, 1992a.
R7: Ramil and Vervoort, 1992a.

Family Malagazziidae Bouillon, 1984

Octophialucium Kramp, 1955

Octophialucium funerarium (Quoy and Gaimard, 1827) (B:m)
R1: Ranson, 1936 (as *Octocanna*).
R7: Ranson, 1936. (as *Octocanna*).
R8: Ranson, 1936. (as *Octocanna*).
R9: Gil, 1981; Gili, 1986 (both as *Octocanna*); Riera *et al.*, 1986; Gili *et al.*, 1987a (as *Octocanna*).
R10: Ranson, 1936. (as *Octocanna*).

Family Phialellidae Russell, 1953

Phialella Browne, 1902

Phialella quadrata (Forbes, 1848) (C:m)
R8: García-Corrales, 1979.
R9: Gili and Castelló, 1985 (as *Lovenella clausa*); Gili, 1986; Llobet *et al.*, 1991.

Superfamily Eirenoidea Haeckel, 1879

Family Eirenidae Haeckel, 1879

Eirene Echscholtz, 1829

Eirene viridula (Péron and Lesueur, 1809) (IP:m)
R4: Gili *et al.*, 1991.
R8: Vives, 1966.
R9: Castelló, 1986; Gili, 1986; Riera *et al.*, 1986; Gili *et al.*, 1987a; Gili *et al.*, 1988.

Eugymnanthea Palombi, 1935

Eugymnanthea inquilina Palombi, 1935 (IP:mg)
R9: Gili, 1986; Gili *et al.*, 1988.

Eutima McCrady, 1857

Eutima gegenbauri (Haeckel, 1864) (CT:m)
R9: Castelló, 1986; Gili, 1986; Riera *et al.*, 1986; Gili *et al.*, 1987a (all as *Octorchis*); Gili *et al.*, 1988.

Eutima gracilis (Forbes and Goodsir, 1851) (TA:m)
R4: Gili *et al.*, 1991.
R10: Barangé and Gili, 1987.

Helgicirrha Hartlaub, 1909

Helgicirrha schulzei Hartlaub, 1909 (TA:m)
R9: Castelló, 1986; Gili, 1986; Gili *et al.*, 1988.

Tima Eschscholtz, 1829
Tima lucullana (Delle Chiaje, 1822) (M?:m)
R9: Gili, 1986; Riera *et al.*, 1986; Gili *et al.*, 1988.

Superfamily Laodiceoidea Browne, 1907

Family Laodiceidae Browne, 1907

Laodicea Lesson, 1843

Laodicea undulata (Forbes and Goodsir, 1853) (CT:m)
R1: Altuna, 1994a.
R4: Ramil, 1988; Gili *et al.*, 1991.
R5: Ranson, 1936.
R8: Vives, 1966; García-Carrascosa, 1981 (as *Cuspidella costata*).
R9: Gili, 1986; Gili *et al.*, 1987a; Gili *et al.*, 1988.

Staurophora Brandt, 1838

Staurophora mertensi (Brandt, 1835) (B:m)
R7: García-Carrascosa, 1981 (as *Cuspidella*).
R8: García-Carrascosa, 1981; García-Carrascosa *et al.*, 1987 (both as *Cuspidella*).

Family Tiarannidae Russell, 1940

Modeeria Forbes, 1848

Modeeria rotunda (Quoy and Gaimard, 1827) (C:m)
R1: Altuna, 1994a.
R2: Rioja, 1905; Rodríguez-Rosillo, 1914 (both as *Calycella fastigiata*).
R3: Alvarez, 1993.
R6: Ramil and Vervoort, 1992a.
R7: Ranson, 1986 (as *Tiaranna rotunda*)
R8: García-Carrascosa, 1981; García-Carrascosa *et al.*, 1987.
R9: De Haro, 1965 (as *Stegopoma fastigiata*); García-Carrascosa, 1981.
R10: Roca, 1986; Roca, 1989b (both as *S. fastigiata*).

Stegopoma Levinsen, 1893

Stegopoma bathyale Vervoort, 1966 (TA':m?)
R3: Alvarez, 1993.
R6: Ramil and Vervoort, 1992a.

Stegopoma giganteum Ramil and Vervoort, 1992 (X:m?)
R6: Ramil and Vervoort, 1992a.

Stegolaria Stechow, 1913

Stegolaria geniculata (Allman, 1888) (CT:g?)
R1: Vervoort, 1985.
R3: Alvarez, 1993.

Tiaranna Hartlaub, 1913

Tiaranna rotunda (Quoy and Gaimard, 1827) (TA:m)
R7: Ranson, 1936.

Superfamily Lovenelloidea Russell, 1953

Family Lovenellidae Russell, 1953

Lovenella Hincks, 1868

Lovenella clausa (Lovén, 1836) (AM;m)
R3: Alvarez, 1993.
R4: Ramil, 1988.
R5: Da Cunha, 1940; Da Cunha, 1944; Da Cunha, 1950.
R7: Gil, 1981; Medel, in prep.
R8: García-Corrales, *et al*, 1979.
R9: Gili, 1986.

Lovenella chiquitita Millard, 1957 (X;m)
R8: García-Corrales, 1979.

Superfamily Mitrocomoidea Torrey, 1909

Family Mitrocomidae Torrey, 1909

Cosmetira Forbes, 1848

Cosmetira pilosella (Forbes, 1848) (B;m)
R3: García-Corrales *et al*., 1979 (as *Cuspidella grandis*).
R4: Allman, 1874 (as *C. grandis*); Ramil, 1988.

Mitrocomella Haeckel, 1879

Mitrocomella brownei (Kramp, 1930) (AM;m)
R9: Gili, 1986; Gili *et al*., 1987a.

Infraorder Lafoeida Bouillon, 1984

Superfamily Lafoeidea Fraser, 1912

Family Hebellidae Fraser, 1912

Hebella Allman, 1888

Hebella parasitica (Ciamician, 1880) (X;mg)
R1: Aguirrezabalaga *et al*., 1984; Isasi, 1985; Isasi and Saiz, 1986; Altuna and García-Carrascosa, 1990; Altuna, 1994a.
R5: Da Cunha, 1944.
R6: Medel, in prep.
R8: García-Corrales, 1979 (also as *H. furax*); García-Carrascosa, 1981; García-Carrascosa *et al*., 1987.
R9: Gili, 1982; Gili *et al*., 1984; Gili and Castelló, 1985; Gili, 1986.
R10: Roca and Moreno, 1985; Gili and García-Rubíes, 1985; Roca, 1986.

Hebellopsis Hadzi, 1913

Hebellopsis scandens (Bale, 1888) (C;m)
R1: Isasi, 1985; Isasi and Saiz, 1986; Aguirrezabalaga *et al*., 1987 (in text); Altuna and García-Carrascosa, 1990; Altuna, 1994a (all as *Hebella*).
R3: García-Corrales, 1979 (as *Hebella calcarata* and as *H. urceolata*).
R5: Da Cunha, 1950 (as *H. brochi*)
R6: Medel, in prep.
R7: Templado *et al*., 1986 (as *Hebella*); Medel, in prep.
R8: García-Corrales, 1979 (as *Hebella calcarata*); García-Carrascosa, 1981 (as *H. scandens*).
R9: De Haro, 1965 (as *Hebella cylindrata*, uncertain because of condition of description and figure); Bibiloni and Cornet, 1982; Gili, 1982; Gili *et al*., 1984; Gili and Castelló, 1985; Gili, 1986; Llobet *et al*., 1991 (all as *Hebella*)
R10: Gili and García-Rubíes, 1985; Roca, 1986; Roca, 1989b (all as *Hebella*).

Scandia Fraser, 1912

Scandia gigas (Pieper, 1828) (B;g)
R1: Isasi, 1985; Isasi and Saiz, 1986; Altuna and García-Carrascosa, 1990 (all as *S. pocillum*); Altuna, 1994a.
R8: García-Carrascosa *et al*., 1987; García-Corrales, 1979; García-Carrascosa, 1981 (all as *S. pocillum*).
R9: Bibiloni and Cornet, 1982; Gili, 1982; Gili *et al*., 1984 (all as *S. pocillum*); Gili and Castelló, 1985; Gili, 1986; Llobet *et al*., 1991.
R10: García-Carrascosa, 1981 (as *S. pocillum*); Gili and García-Rubíes, 1985; Roca and Moreno, 1985 (as *S. parvula*); Roca, 1986 (as *S. parvula*); Roca, 1989b.

Scandia michael-sarsi (Leloup, 1935) (TA;g)
R8: García-Corrales, 1979.

Family Lafoeidae Hincks, 1868

Acryptolaria Norman, 1875

Acryptolaria conferta (Allman, 1877) (C;g)
R1: Altuna and García-Carrascosa, 1990; Altuna, 1994a.
R3: Alvarez, 1993.
R6: Ramil and Vervoort, 1992a (ssp. *conferta* and ssp. *minor*).
R7: Templado *et al*., 1986.
R8: García-Carrascosa, 1981; García-Carrascosa *et al*., 1987.
R10: Roca, 1986; Roca, 1989b.

Acryptolaria crassicaulis (Allman, 1888) (C;g)
R1: Altuna, 1994a.
R6: Ramil and Vervoort, 1992a.

Bedotella Stechow, 1913

Bedotella armata (Pictet and Bedot, 1900) (C;g)
R1: Aguirrezabalaga *et al*., 1984 (as *Campanularia*); Aguirrezabalaga *et al*., 1986; Altuna and García-Carrascosa, 1990; Altuna, 1994a.
R3: Alvarez, 1993.
R4: Pictet and Bedot, 1900 (as *Campanularia*).
R6: Ramil and Vervoort, 1992a.

Cryptolaria Busk, 1857

Cryptolaria pectinata (Allman, 1888) (TA;g)
R3: Alvarez, 1993.
R4: Pictet and Bedot, 1900 (as *Perisiphonia*).
R6: Ramil and Vervoort, 1992a.

Filellum Hincks, 1868

Filellum serpens (Hassall, 1848) (C;g)
R1: Aguirrezabalaga *et al*., 1986; Altuna and García-Carrascosa, 1990; Altuna, 1994a.
R5: Da Cunha, 1950 (as *Grammaria*).
R7: García-Carrascosa, 1981; Templado *et al*., 1986; Medel, in prep.
R8: García-Corrales, 1979; García-Carrascosa, 1981; García-Carrascosa *et al*., 1987.
R9: Gili, 1982; Gili *et al*., 1984; Gili, 1986; Llobet *et al*., 1991.
R10: Roca, 1986; Roca, 1989b.

Filellum serratum (Clarke, 1879) (CT;g)
R1: Aguirrezabalaga *et al*., 1988; Altuna and García-Carrascosa, 1990; Altuna, 1994a.
R3: Alvarez, 1993.
R6: Stechow, 1919; Stechow, 1923; Ramil and Vervoort, 1992a (as cf.); Medel, in prep.
R7: García-Carrascosa, 1981; Templado *et al*., 1986; Medel, in prep.
R8: García-Corrales, 1979; García-Carrascosa, 1981.
R9: García-Carrascosa, 1981; Gili, 1986.
R10: Roca, 1986.

Lafoea Lamouroux, 1821

Lafoea dumosa (Fleming, 1820) (C;g)
R1: Aguirrezabalaga *et al*., 1984; Aguirrezabalaga *et al*., 1988; Altuna and García-Carrascosa, 1990; Altuna, 1994a.
R3: Alvarez, 1993.
R4: Pictet and Bedot, 1900; Polo *et al*., 1979; Ramil, 1988.
R5: Nobre, 1931; Da Cunha, 1944 (also as *L. fruticosa*); Da Cunha, 1950.
R6: Templado *et al*., 1986; Ramil and Vervoort, 1992a; Medel, in prep.
R8: Rioja, 1905 (also as *L. fruticosa*); Rodríguez-Rosillo, 1914 (also as *L. fruticosa*); García Corrales *et al*., 1979; García-Carrascosa, 1981 (also as *L. fruticosa*); García-Carrascosa *et al*., 1987.

R9: Maluquer, 1916; De Haro, 1965; Gili, 1979; Gili, 1981; Bibiloni and Cornet, 1982; Gili, 1982; Gili *et al.*, 1984; Gili, 1986 (also as *L. fruticosa*); Llobet *et al.*, 1991.
R10: Mateu, 1984 (also as *L. fruticosa*); Roca, 1986; Roca, 1989b.

Zygophylax Quelch, 1885

Zygophylax biarmata Billard, 1905 (C;g)
R3: Alvarez, 1993 (as *Zygophylax* cf. *biarmata* in part, Vervoort pers. com.); Altuna and Alvarez, 1993.
R4: Pictet and Bedot, 1900 (as *Lictorella halecioides* var. *annellata*); Ramil and Vervoort, 1992a.
R6: Ramil and Vervoort, 1992a.
R7: Templado *et al.*, 1986; Medel, in prep.

Zygophylax browned Billard, 1924 (AM;g)
R4: Ramil and Vervoort, 1992a.

Zygophylax elegantula Leloup, 1940 (A;g)
R1: Altuna and García-Carrascosa, 1990.

Zygophylax levinseni (Saemundsson, 1911) (B';g)
R1: Altuna, 1994a.
R3: Alvarez, 1993 (as *Zygophylax* cf. *biarmata* in part, Vervoort pers. com.); Altuna and Alvarez, 1993.

Zygophylax sibogae Billard, 1918 (IP';g)
R3: Alvarez, 1993; Altuna and Alvarez, 1993.

Infraorder Haleciida Bouillon, 1984

Superfamily Halecioidea Hincks, 1868

Family Haleciidae Hincks, 1868

Mitrocomium Haeckel, 1879

Mitrocomium cirratum Haeckel, 1879 (TA;m)
R1: Isasi, 1985; Isasi and Saiz, 1986; Altuna and García-Carrascosa, 1990 (all as *Campalecium medusiferum*); Altuna, 1993b.
R9: Gili, 1986; Llobet *et al.*, 1991 (both as *C. medusiferum*).
– The genus *Campalecium* Torrey, 1902 is considered as a junior synonym of *Mitrocomium* by Calder (1991). According to Altuna's opinion (see Altuna, 1993b), *Mitrocomium medusiferum* specimens from european coasts must be included in *M. cirratum* until the species *M. medusiferum* (Torrey, 1902) from the Pacific coasts can be checked.

Halecium Oken, 1815

Halecium beanii (Johnston, 1838) (C;g)
R1: Isasi, 1985; Isasi and Saiz, 1986; Aguirrezabalaga *et al.*, 1988; Altuna and García-Carrascosa, 1990; Altuna, 1994a.
R3: Anadón, 1988; Alvarez, 1993.
R4: Ramil, 1988; Ramil and Iglesias, 1988a.
R5: Nobre, 1931; Da Cunha, 1940; Da Cunha, 1944.
R8: Rioja, 1905; Rodríguez-Rosillo, 1914.
R9: Gili, 1979; Gili, 1981; Bibiloni and Cornet, 1982 (as *H. beani*); Gili, 1982; Gili *et al.*, 1984; Gili, 1986; Llobet *et al.*, 1991.

Halecium delicatulum Coughtrey, 1876 (C;g)
R1: Aguirrezabalaga *et al.*, 1988; Aguirrezabalaga *et al.*, 1984; Altuna and García-Carrascosa, 1990; Altuna, 1994a.
R4: Ramil, 1988; Ramil and Iglesias, 1988a.
R6: Ramil and Vervoort, 1992a; Medel, in prep.
R7: García-Carrascosa, 1981; Medel, in prep.; Altuna, 1992.
R8: García-Corrales *et al.* 1978 (as *H. tenellum*); García-Carrascosa, 1981; García-Carrascosa *et al.*, 1987.
R9: García-Carrascosa, 1981; Gili, 1982 (as *H. mediterraneum*); Gili, 1986 (as *H. mediterraneum*); Llobet *et al.*, 1991 (as *H. mediterraneum*).
R10: Roca and Moreno, 1985; Roca, 1986; Roca, 1987; Gili and García-Rubíes, 1985 (as *H. mediterraneum*).

Halecium halecinum (Linnaeus, 1758) (C;g)
R1: Isasi, 1985; Isasi and Saiz, 1986; Aguirrezabalaga *et al.*, 1988 (as *H.* cf. *halecinum*); Altuna and García-Carrascosa, 1990; Altuna, 1994a.
R2: Rioja, 1905; Rodríguez-Rosillo, 1914.
R3: Anadón, 1988; Alvarez, 1993.
R4: Chas and Rodríguez, 1977; Estrada, 1979; Polo *et al.* 1979; Ramil, 1988; Ramil and Iglesias, 1988a.
R5: Nobre, 1931; Da Cunha, 1940; Da Cunha, 1944; Da Cunha, 1950.
R7: Templado *et al.*, 1986; Medel, in prep.
R9: Gili, 1979; Gili, 1981; Bibiloni and Cornet, 1982; Gili, 1982; Gili *et al.*, 1984; Gili, 1986.
R10: Roca, 1986; Roca, 1989b.

Halecium labrosum Alder, 1859 (B;g)
R1: Isasi, 1985; Altuna, 1994a.
R3: Alvarez, 1993.
R4: Estrada, 1979; Ramil, 1988; Ramil and Iglesias, 1988a.
R8: García Carrascosa, 1981.
R9: Gili, 1979; Gili, 1981; Gili, 1982; Gili *et al.*, 1984; Gili and Castelló, 1985; Gili, 1986; Llobet *et al.*, 1991.
R10: Gili and García-Rubíes, 1985; Roca, 1986; Roca, 1989b.

Halecium lankesteri (Bourne, 1890) (TA;g)
R1: Altuna *et al.*, 1983; Aguirrezabalaga *et al.*, 1984; Isasi, 1985; Aguirrezabalaga *et al.*, 1986; Isasi and Sáiz, 1986; Altuna and García-Carrascosa, 1990; Altuna, 1994a.
R3: Alvarez, 1993.
R4: Ramil, 1988; Ramil and Iglesias, 1988a.
R8: García Corrales *et al.*, 1978.
R9: Gili and Castelló, 1985; Gili, 1986; Llobet *et al.*, 1991.
R10: Gili and García-Rubíes, 1985; Roca, 1986; Roca, 1989b.

Halecium liouvillei Billard, 1934 (A;g)
R1: Altuna and García-Carrascosa, 1990; Altuna, 1993b; Altuna, 1994a.
R4: Ramil, 1988; Ramil and Iglesias, 1988a.
R6: Medel, in prep.

Halecium muricatum (Ellis and Solander, 1786) (B;g)
R3: Alvarez, 1993.
R9: Gili, 1982; Gili *et al.*, 1984.

Halecium nanum Alder, 1859 (TA;g)
R1: Aguirrezabalaga *et al.*, 1988 (as cf.); Altuna and García-Carrascosa, 1990; Altuna, 1994a (as cf.).
R9: García-Rubíes, 1987.

Halecium petrosum Stechow, 1919 (AM;g)
R8: García-Carrascosa, 1981.
R9: Llobet *et al.*, 1991.

Halecium pusillum (M. Sars, 1857) (TA;g)
R1: Altuna *et al.*, 1983; Aguirrezabalaga *et al.*, 1984; Isasi, 1985; Isasi and Sáiz, 1986; Altuna and García-Carrascosa, 1990; Altuna, 1994a.
R3: García-Corrales *et al.*, 1978.
R4: Ramil, 1988; Ramil and Iglesias, 1988a.
R7: García-Carrascosa, 1981; Altuna, 1992; García-Raso *et al.*, 1992.
R8: García-Corrales *et al.*, 1978; García-Carrascosa, 1981.
R9: García Carrascosa, 1981; Gili *et al.*, 1984; Gili, 1986; García-Rubíes, 1987; Llobet *et al.*, 1991.
R10:Roca and Moreno, 1985; Gili and García-Rubíes, 1985; Roca, 1986; Roca, 1987.

Halecium reflexum Stechow, 1919 (TA;g)
R8: García-Carrascosa, 1981; García-Carrascosa *et al.*, 1987.

Halecium sessile Norman, 1867 (C;g)
R1: Aguirrezabalaga *et al.*, 1987; Aguirrezabalaga *et al.*, 1988; Altuna and García-Carrascosa, 1990; Altuna, 1994a.
R5: Da Cunha, 1944; Da Cunha, 1950 (both as *H. plumosum*).

Halecium sibogae Billard, 1929 (A;g)
R6: Ramil and Vervoort, 1992a; Medel, in prep. (both as ssp. *marocanum*).

Halecium tenellum Hincks, 1861 (C;g)
R1: Aguirrezabalaga *et al.*, 1984; Aguirrezabalaga *et al.*, 1988; Altuna and García-Carrascosa, 1990; Altuna, 1994a.

R2: Rioja, 1905; Rodriguez-Rosillo, 1914.
R3: Alvarez, 1993.
R5: Da Cunha, 1944; Da Cunha, 1950.
R6: Ramil and Vervoort, 1992a.
R7: Templado *et al.*, 1986; Medel, in prep.
R8: García-Carrascosa, 1981; García-Corrales, 1979.
R9: García-Carrascosa, 1981; Gili, 1982; Gili *et al.*, 1984; Gili and Castelló, 1985; Gili, 1986; Llobet *et al.*, 1991.
R10: Roca, 1986; Roca, 1989b.

Hydranthea Hincks, 1868

Hydranthea margarica (Hincks, 1863) (R:mg)
R1: Altuna and García-Carrascosa, 1990; Altuna, 1994a (as cf.).
R8: García-Carrascosa, 1981.
R9: Gili, 1986; Llobet *et al.*, 1991.

Ophiodissa Stechow, 1919

Ophiodissa mirabilis (Hincks, 1868) (CT:g)
R1: Aguirrezabalaga *et al.*, 1984; Isasi, 1985; Isasi and Sáiz, 1986; Altuna and García-Carrascosa, 1990; Altuna, 1994a (as *Hydrodendron*).
R4: Ramil, 1988; Ramil and Iglesias, 1988a.
R5: Leloup, 1939b (as *Diplocyatus caciniformis*).
R6: Medel, in prep.
R8: García-Corrales *et al.*, 1978 (as *O. caciniformis*).
R9: Gili, 1986 (as *Hydrodendron*).

Infraorder Plumulariida Bouillon, 1984

Superfamily Plumularoidea Hincks, 1868

Family Aglaopheniidae Broch, 1918

Aglaophenia Lamouroux, 1812

Aglaophenia acacia Allman 1883 (TA:g)
R7: García-Raso *et al.*, 1992; Medel and Vervoort, 1995; Medel, in prep.
R9: Gili, 1986; Svoboda and Cornelius, 1991.
R10: Roca, 1986; Roca, 1989b.

Aglaophenia elongata Meneghini, 1845 (AM,g)
R8: García-Carrascosa, 1981; García-Carrascosa *et al.*, 1987.
R9: De Haro, 1965 (considered doubtful by García-Carrascosa, 1981); Gili and Castelló, 1985; Gili, 1986.
R10: Gili and García-Rubíes, 1985.

Aglaophenia harpago Von Schenck, 1965 (M:g)
R7: García-Raso *et al.*, 1992.
R8: García-Carrascosa, 1981.
R9: De Haro, 1965; García-Carrascosa, 1981; Gili *et al.*, 1984; Gili and Castelló, 1985; Gili, 1986; García-Rubíes, 1987.
R10: García-Carrascosa, 1981; Gili and García-Rubíes, 1985; Roca, 1986; Roca, 1987.

Aglaophenia kirchenpaueri (Heller, 1868) (AM:g)
R1: Isasi, 1985; Aguirrezabalaga *et al.*, 1986; Isasi and Saiz, 1986; Aguirrezabalaga *et al.*, 1988; Altuna and García-Carrascosa, 1990; Svoboda and Cornelius, 1991; Altuna, 1994a.
R5: Da Cunha, 1950; Svoboda and Cornelius, 1991.
R6: Medel and Vervoort, 1995; Medel, in prep.
R7: García-Carrascosa, 1981; Templado *et al.*, 1986; Svoboda and Cornelius, 1991; Altuna, 1992; Ramil and Vervoort, 1992a; García-Raso *et al.*, 1992; Medel and Vervoort, 1995; Medel, in prep.
R8: García-Corrales *et al.*, 1978 (as *Thecocarpus phyteuma*); García-Carrascosa, 1981; García-Carrascosa *et al.*, 1987.
R9: García-Carrascosa, 1981; Gili, 1982; Gili *et al.*, 1984; Gili and Castelló, 1985; Gili, 1986.
R10: De Buen, 1916; Gili and García-Rubíes, 1985; Roca, 1986.

Aglaophenia lophocarpa Allman, 1877 (TA:g)
R1: Isasi, 1985; Isasi and Saiz, 1986 (both as cf.); Altuna and García-Carrascosa, 1990.
R3: Alvarez, 1993.
R6: Ramil and Vervoort, 1992a.
R7: García-Raso *et al.*, 1992.

Aglaophenia octodonta (Heller, 1868) (AM:g)
R1: Altuna and García-Carrascosa, 1990; Altuna, 1994a.
R4: Chas and Rodríguez, 1977; Estrada, 1979; Ramil, 1988.
R5: Da Cunha, 1944 (as *A. pluma* f. *helleri*).
R6: Medel and Vervoort, 1995; Medel, in prep.
R7: García-Carrascosa, 1981; Altuna, 1992; García-Raso *et al.*, 1992; Medel and Vervoort, 1995; Medel, in prep.
R8: García-Carrascosa, 1981 (probably also as *A. tubulifera*); García-Carrascosa *et al.*, 1987.
R9: Gili, 1979; García-Carrascosa, 1981; Gili, 1981; Bibiloni and Cornet, 1982; Gili, 1982; Gili and Castelló, 1985; Gili, 1986.
R10: De Buen, 1916; Gili and García-Rubíes, 1985; Roca and Moreno, 1985; Roca, 1986.
– The records of García-Carrascosa, 1981 must be considered doubtful corresponding with *A. pluma*, *A. octodonta* as well as with *A. tubiformis*, as the variability of the material as well as presence or absence of zooxanthellae has been left out of consideration. Ramil (1988) considers García-Corrales *et al.*, 1978 record of *A. pluma* f. *helleri* from Asturias and Levante relates to *A. octodonta*.

Aglaophenia parvula Bale, 1882 (CT:g)
R1: Isasi, 1985 (as *Aglaophenia* sp. cf. *parvula*); Isasi and Saiz, 1986 (as *Aglaophenia* sp. cf. *parvula*); Altuna and García-Carrascosa, 1990; Altuna, 1994a.
R4: Ramil, 1988.
R6: Medel and Vervoort, 1995; Medel, in prep.

Aglaophenia picardi Svoboda, 1979 (AM:g)
R1: Isasi, 1985; Isasi and Saiz, 1986; Altuna and García-Carrascosa, 1990; Svoboda and Cornelius, 1991; Altuna, 1994a.
R6: Ramil and Vervoort, 1992a; Medel and Vervoort, 1995; Medel, in prep.
R7: García-Raso *et al.*, 1992; Medel and Vervoort, 1995; Medel, in prep.

Aglaophenia pluma (Linnaeus, 1758) (C:g)
R1: Altuna *et al.*, 1983; Isasi, 1985; Isasi and Saiz, 1986; Altuna and García-Carrascosa, 1990; Altuna, 1994a.
R2: Rioja, 1905; Rodríguez-Rosillo, 1914.
R3: García-Corrales *et al.*, 1978 (as f. *typica* and f. *helleri*); Lombas and Anadón, 1985; Anadón, 1988; Alvarez, 1993.
R4: Chas and Rodríguez, 1977 (as f. *typica*); Estrada, 1979; RAMIL, 1988; Alvarez, 1993.
R5: Nobre, 1931; Da Cunha, 1944 (as f. *typica*, f. *helleri* and f. *gracillima*); Da Cunha, 1950.
R6: Medel and Vervoort, 1995; Medel, in prep.
R7: García-Carrascosa, 1981; Altuna, 1992; García-Raso *et al.*, 1992; Medel and Vervoort, 1995; Medel, in prep.
R8: Rioja, 1905; Rodríguez-Rosillo, 1914; García-Corrales *et al.*, 1978 (as f. *typica*, f. *dichotoma*, f. *gracillima* and f. *helleri*); probably also as *Aglaophenia latecarinata*); García-Carrascosa, 1981; García-Carrascosa *et al.*, 1987.
R9: Guille, 1965; Gili, 1979, Gili, 1981; Bibiloni and Cornet, 1982; Gili, 1982 (as f. *typica* and f. *helleri*); Gili *et al.*, 1984 (as f. *typica* and f. *helleri*); Gili and Castelló, 1985; Gili, 1986; Llobet *et al.*, 1991.
R10: Gili and García-Rubíes, 1985; Roca and Moreno, 1985; Roca, 1986.

Aglaophenia tubiformis Marktanner-Turneretscher, 1890 (AM?:g)
R1: Aguirrezabalaga *et al.*, 1988; Altuna and García-Carrascosa, 1990; Altuna, 1994a.
R4: Ramil, 1988.
R5: Da Cunha, 1944; Da Cunha, 1950 (both as *A. dichotoma*).
R7: García-Carrascosa, 1981 (as *A. dichotoma*); García-Raso *et al.*, 1992; Medel and Vervoort, 1995; Medel, in prep.
R8: García-Carrascosa, 1981 (as *A. dichotoma*); García-Carrascosa *et al.*, 1987.
R9: De I, 1965; García-Carrascosa, 1981 (as *A. dichotoma*; doubtful as no zooxanthellae are mentioned); Gili, 1982; Gili *et al.*, 1984; Gili and Castelló, 1985; Gili, 1986.
– García-Carrascosa (1981) considers the record of García-Corrales *et al.* (1978) to be probably relating to *A.pluma*. Ramil (1988) is of the opinion that *A. pluma* f. *dichotoma* of García-Corrales *et al.* (1978) in the Levantine region is *A. tubiformis*; no data on zooxanthellae.

Aglaophenia tubulifera (Hincks, 1861) (AM;g)
R1: Isasi, 1985; Isasi and Saiz, 1986; Aguirrezabalaga *et al*., 1986; Aguirrezabalaga *et al*., 1988; Altuna and García-Carrascosa, 1990; Svoboda and Cornelius, 1991; Altuna, 1994a.
R2: Rioja, 1905; Rodríguez-Rosillo, 1914 (both as *A. tubuliphera*).
R3: Alvarez, 1993.
R4: Pictet and Bedot, 1900 (as *A. filicula*); Ramil, 1988; Alvarez, 1993.
R5: Billard, 1906; Nobre, 1931; Da Cunha, 1944; Da Cunha, 1950; Svoboda and Cornelius, 1991.
R6: Bedot, 1931; Ramil and Vervoort, 1992a; Medel and Vervoort, 1995; Medel, in prep.
R7: Templado *et al*., 1986 Svoboda and Cornelius, 1991; Medel and Vervoort, 1995; Medel, in prep.
R8: Rioja, 1905; Rodríguez-Rosillo, 1914 (both as *A. tubuliphera*).
– We think that the material cited as *A. tubulifera* from Levante by García-Carrascosa (1981) does not belong to this species. We think that it probably corresponds with *A. octodonta*.
The specimens recorded by Rioja (1905) and Rodríguez-Rosillo (1914) are considered doubtful by Ramil (1988).
Aglaophenia cubiformis cited by Rioja (1905) is an unidentifiable species, probably a mistake for *Aglaophenia cupressina* Lamouroux, 1816 (Vervoort, pers. com.).

Gymnangium Hincks, 1874

Gymnangium montagui (Billard, 1912) (TA';g)
R1: Isasi, 1985; Isasi and Saiz, 1986; Aguirrezabalaga *et al*., 1987; Aguirrezabalaga *et al*., 1988; Altuna and García-Carrascosa, 1990; Altuna, 1994a.
R2: Rioja, 1905; Rodríguez-Rosillo, 1914 (both as *Aglaophenia pennatula*).
R4: Estrada, 1979; Ramil, 1988.
R5: Da Cunha,1944; Da Cunha, 1950 (both as *A. pennatula*).
R6: Medel and Vervoort, 1995; Medel, in prep.
R7: Medel and Vervoort, 1995; Medel, in prep.
– Atlantic species found in Algeciras Bay.

Cladocarpus Allman, 1874

Cladocarpus boucheti Ramil and Vervoort, 1992 (X;g)
R6: Ramil and Vervoort, 1992a.

Cladocarpus corneliusi Ramil and Vervoort, 1992 (X;g)
R6: Ramil and Vervoort, 1992a.

Cladocarpus multiseptatus (Bale, 1915) (IP;g)
R3: Alvarez, 1993.

Cladocarpus paraventricosus Ramil and Vervoort, 1992 (X;g)
R6: Ramil and Vervoort, 1992a.

Cladocarpus pectiniferus Allman, 1883 (AM;g)
R6: Ramil and Vervoort, 1992a.

Cladocarpus sigma (Allman, 1877) (B';g)
R1: Aguirrezabalaga *et al*., 1984; Altuna and García-Carrascosa, 1990; Altuna, 1994a (both as var. *folini*).
R3: Alvarez, 1993.
R4: Pictet and Bedot, 1900; Ramil and Vervoort, 1992a.
R5: Da Cunha, 1944; Da Cunha, 1950.

Lytocarpia Kirchenpauer, 1872.

Lytocarpia myriophyllum (Linnaeus, 1758) (C;g)
R1: Bedot, 1931; Aguirrezabalaga *et al*., 1986; Altuna and García-Carrascosa, 1990 (all as *Thecocarpus*); Altuna, 1994a.
R2: Rioja, 1905; Rodríguez-Rosillo, 1914 (both as *Aglaophenia*).
R3: Alvarez, 1993 (as *Thecocarpus*).
R4: Allman, 1874; Pictet and Bedot, 1900 (both as *Aglaophenia*); Bedot, 1931; Estrada, 1979; Estrada, 1980; Ramil, 1988 (all as *Thecocarpus*).
R5: Allman, 1874 (as *Aglaophenia*); Bedot, 1931; Da Cunha, 1944 (both as *Thecocarpus*).
R6: Ramil and Vervoort, 1992a; Templado *et al*., 1993 (as *Thecocarpus*); Medel and Vervoort, 1995; Medel, in prep.
R7: García-Carrascosa, 1981 (as *Thecocarpus*); García-Raso *et al*., 1992; Templado *et al*., 1993 (as *Thecocarpus*).
R8: Rioja, 1905; Rodríguez-Rosillo, 1914 (both as *Aglaophenia*); García-Carrascosa, 1981; García-Carrascosa *et al*., 1987 (both as *Thecocarpus*).
R9: De Haro, 1965; Rubio, 1971; Gili *et al*., 1984; Gili, 1986 (both as *Thecocarpus*).
R10: De Buen, 1916; Roca, 1986; Roca, 1989b (all as *Thecocarpus*).

Lytocarpia distans (Allman, 1877) (B;g)
R9: Gili, 1986.

– Rioja (1905) and Rodríguez-Rosillo (1914) cite *Lytocarpus spectabilis* Allman, 1883 in "Cádiz". Actually, this species is considered as a synonymous of *Macrorhynchia phoenicea* (Busk, 1852), an indopacific species. We consider this record doubtful that need to be confirmed.

Streptocaulus Allman, 1883

Streptocaulus dollfusi Billard, 1924 (AM;g)
R6: Medel and Vervoort, 1995; Medel, in prep.
R7: Medel and Vervoort, 1995; Medel, in prep.

Family Halopteridae Millard, 1962

Antennella Allman, 1877

Antennella secundaria (Gmelin, 1791) (C;g)
R1: Altuna *et al*., 1983; Altuna and García-Carrascosa, 1990; Altuna, 1994a.
R2: Arévalo, 1906 (as *A. gracilis*).
R3: Alvarez, 1993.
R4: Billard, 1906 (as *Plumularia*); Estrada, 1979; Estrada, 1980 (as *Halopteris catharina*); Urgorri and Besteiro, 1983; Ramil, 1988.
R5: Da Cunha, 1944; Da Cunha, 1950 (both as *Plumularia catharina*).
R6: Billard, 1906 (as *Plumularia*); Ramil and Vervoort, 1992a.
R7: García-Carrascosa, 1981; Templado *et al*., 1986; Altuna, 1992; Ramil and Vervoort, 1992a; Medel and Vervoort, 1995; Medel, in prep.
R8: García-Corrales *et al*., 1978 (as *H. catharina*); García-Carrascosa, 1981; García-Carrascosa *et al*., 1987.
R9: García-Carrascosa, 1981; Gili, 1982; Gili *et al*., 1984; Gili, 1986; García-Rubíes, 1987.
R10: Gili and García-Rubíes, 1985; Roca, 1986; Roca, 1989b.
– Stechow (1919) cited from Spain without special locality. Rioja (1905) and Rodríguez-Rosillo (1914) as *Antenella gracilis* must be checked.

Antennella siliquosa (Hincks, 1877) (AM;g)
R1: Isasi, 1985; Isasi and Saiz, 1986; Altuna and García-Carrascosa, 1990 (all as *Halopteris diaphana* var. *siliquosa*).
R3: García-Corrales *et al*., 1978 (as *Halopteris glutinosa* and *H. diaphana* f. *siliquosa*).
R7: García-Carrascosa, 1981; Medel and Vervoort, 1995; Medel, in prep.
R8: García-Corrales *et al*., 1978 (as *H. glutinosa* and *H. diaphana* f. *siliquosa*); García-Carrascosa, 1981; García-Carrascosa *et al*., 1987.
R9: García-Carrascosa, 1981.
R10: Roca and Moreno, 1985; Roca, 1986 (both as *Antenella simplex*).

Halopteris Allman, 1877

Halopteris catharina (Johnston, 1833) (C;g)
R1: Aguirrezabalaga *et al*., 1984; Altuna and García-Carrascosa, 1990; Altuna, 1994a.
R2: Rioja, 1905; Rodríguez Rosillo, 1914 (both as *Plumularia geminata*)
R3: Alvarez, 1993.
R6: Ramil and Vervoort, 1992a.
R9: Gili, 1982; Gili *et al*., 1984; Gili and Castelló, 1985; Gili, 1986.
R10: Gili and García-Rubíes, 1985.

Halopteris diaphana (Heller, 1868) (CT:g)
R1: Isasi, 1985; Isasi and Saiz, 1986 (both as ssp. *diaphana*); Altuna and García-Carrascosa, 1990 (as var. *diaphana*); Altuna, 1994a.
R6: Medel and Vervoort, 1995; Medel, in prep.
R7: García-Carrascosa, 1981; Medel and Vervoort, 1995; Medel, in prep.
R8: García-Corrales *et al*., 1978 (as *Halopteris diaphana diaphana*); García-Carrascosa, 1981.
R9: García-Carrascosa, 1981; Gili, 1982; Gili *et al*., 1984; Gili and Castelló, 1985; Gili, 1986 (all as *Thecocaulus*).
R10: Gili and García-Rubíes, 1985; Roca, 1986; Roca, 1989b.

Halopteris liechtensterni Marktanner-Turneretscher, 1890 (M,g)
R6: Medel and Vervoort, 1995; Medel, in prep.
R7: Medel and Vervoort, 1995; Medel, in prep.
R10: Roca, 1986 (as *Halopteris* sp.).

Schizotricha Allman, 1883

Schizotricha frutescens (Ellis and Solander, 1786) (TA:g)
R1: Aguirrezabalaga *et al*., 1984; Altuna and García-Carrascosa, 1990; Altuna, 1994a.
R2: Rioja, 1905; Rodríguez-Rosillo, 1914; Arévalo, 1906 (all as *Plumularia*).
R3: Alvarez, 1993.
R6: Ramil and Vervoort, 1992a.
R8: García-Corrales *et al*., 1978.
R9: Gili, 1986.

Family Kirchenpaueriidae Millard, 1962

Kirchenpaueria Jickeli, 1883

Kirchenpaueria bonnevieae (Billard, 1906) (IP:g)
R4: Pictet and Bedot, 1900 (as *Plumularia elegantula* var.); Billard, 1906 (as *P. Bonnevieae*); Ramil and Vervoort, 1992a.
R6: Ramil and Vervoort, 1992a (also ssp. *simplex*).

Kirchenpaueria pinnata (Linnaeus, 1758) (C:g)
R1: Altuna *et al*., 1983; Altuna and García-Carrascosa, 1990; Altuna, 1994a.
R2: Rioja, 1905 (as *Plumularia pinnata*, *P. echinulata* and *P. similis*); Arévalo, 1906 (as *P. echinulata* and *P. similis*); Rodríguez Rosillo, 1914 (as *P. pinnata*, *P. echinulata* and *P. similis*).
R3: García Corrales *et al*. 1978; Anadón, 1988; Alvarez, 1993.
R4: Pictet and Bedot, 1900 (as *P. elegantula* var.); Rioja, 1905 (as *P. pinnata*, *P. echinulata* and *P. similis*); Arévalo, 1906 (as *P. pinnata*); Rodríguez-Rosillo, 1914 (as *P. pinnata*, *P. echinulata* and *P. similis*); Chas and Rodríguez, 1977 (also as *Ventromma halecioides*); Estrada, 1979 (as f. *echinulata*); Ramil, 1988.
R5: Da Cunha, 1944 (also as f. *similis*, f. *echinulata* and f. *articulata*); Da Cunha, 1950.
R6: Medel and Vervoort, 1995; Medel, in prep.
R7: García-Carrascosa, 1981 (also as f. *echinulata*, f. *typica*, f. *similis* and f. *minuta*); García-Raso *et al*., 1992; Medel and Vervoort, 1995; Medel, in prep.
R8: García-Corrales *et al*., 1978; García-Carrascosa, 1981 (also as f. *echinulata*, f. *typica*, f. *similis* and f. *minuta*); García-Carrascosa *et al*., 1987.
R9: Maluquer, 1916; De Haro, 1965; Gili, 1979 (as *K. echinulata*); García-Carrascosa, 1981 (also as f. *echinulata*, f. *typica*, f. *similis* and f. *minuta*); Gili, 1981; Bibiloni and Cornet, 1982; Gili, 1982 (as *K. pinnata* f. *typica* and f. *echinulata*); Gili *et al*., 1984; Gili and Castelló, 1985; Gili, 1986 (also as *K. echinulata*); García-Rubíes, 1987; Llobet *et al*., 1991 (also as *K. echinulata*).
R10: Roca and Moreno, 1985; Roca, 1986; Roca and Moreno, 1987; Roca, 1989b (all also as *K. similis*).

Ventromma Stechow, 1923

Ventromma halecioides (Alder, 1859 (C:g)
R1: Altuna *et al*., 1983; Isasi, 1985; Isasi and Saiz, 1986; Altuna and García-Carrascosa, 1990; Altuna, 1994a.
R3: Anadón, 1988.
R4: Ramil, 1988.
R5: Nobre, 1931 (as *Plumularia halecioides*); Da Cunha, 1944 (as *Ventromma halecioides*).
R6: Medel and Vervoort, 1995; Medel, in prep.
R8: García-Corrales *et al*., 1978; García-Carrascosa, 1981.
R9: Gili, 1979; Gili, 1981; Gili, 1982; Gili *et al*., 1984; Gili, 1986.
R10: Gili and García-Rubíes, 1985; Roca, 1986; Roca and Moreno, 1987; Barangé and Gili, 1987.

Family Plumulariidae Hincks, 1868

Monotheca Nutting, 1900

Monotheca obliqua (Johnston, 1847) (CT:g)
R1: Isasi, 1985; Isasi and Saiz, 1986; Altuna and García-Carrascosa, 1990 (all as *Plumularia*); Altuna, 1994a.
R3: Anadón, 1988 (as *Plumularia*).
R4: Ramil, 1988; Alvarez, 1993 (as *Plumularia*).
R5: Nobre, 1931; Da Cunha, 1944; Da Cunha, 1950 (all as *Plumularia*).
R7: García-Carrascosa, 1981; García-Raso *et al*., 1992 (as *Plumularia*).
R8: García-Corrales *et al*., 1978 (as *Plumularia*); García-Carrascosa, 1981.
R9: De Haro, 1965 (as *M. posodoniae*); Gili, 1982 (as *Plumularia*, and also as ssp. *posodoniae*); Gili, 1986 (as *Plumularia*, and also as ssp. *posodoniae*); Gili and Castelló, 1985 (as *Plumularia*, and also as ssp. *posodoniae*); García-Carrascosa, 1981; Gili *et al*., 1984 (as *Plumularia*, and also as f. *typica* and f. *posidoniae*); García-Rubíes, 1987 (as *Plumularia*).
R10: Roca and Moreno, 1985; Gili and García-Rubíes, 1985 (as ssp. *posodoniae* in text); Roca, 1986; Roca, 1987; Roca, 1989b (all as *Plumularia*).
– García-Carracosa (1981) thinks that *Plumularia femina* from García-Corrales *et al* (1978) could be *Monotheca obliqua*.

Monotheca pulchella Bale, 1882 (IP:g)
R6: Medel and Vervoort, 1995; Medel, in prep.
R7: Medel and Vervoort, 1995; Medel, in prep.
R8: García-Corrales *et al*., 1978 (as *P. femina*).
R10: Roca, 1986; Roca and Moreno, 1985 (both as *Plumularia*).

Nemertesia Lamouroux, 1812

Nemertesia antennina (Linnaeus, 1758) (C:g)
R3: Alvarez, 1993.
R4: Nobre, 1931 (as *Antennularia*); Da Cunha, 1944; Da Cunha, 1950; Bedot, 1931; Estrada, 1979; Estrada, 1980; Urgorri and Besteiro, 1983; Ramil, 1988.
R5: Nobre, 1931 (as *Antennularia*); Da Cunha, 1940; Da Cunha, 1944; Da Cunha,1950.
R6: Ramil and Vervoort, 1992a.
R7: Templado *et al*., 1986; Medel and Vervoort, 1995; Medel, in prep.
R8: Rioja, 1905; Arévalo, 1906; Rodríguez-Rosillo, 1914 (all as *Antennularia*); García-Carrascosa *et al*., 1987.
R9: De Haro, 1965 (as *Antennularia*); Gili, 1979; Camp and Ros, 1980; Gili, 1981; Gili, 1982; Gili *et al*., 1984; Gili, 1986.
R10: De Buen, 1916; De Buen, 1934; Roca, 1986; Roca, 1989b.

Nemertesia irregularis (Quelch, 1885) (CT:g)
R1: Altuna, 1994a.
R2: Rioja, 1905 (as *Antennularia Perrieri* var. *antennoides*); Arévalo, 1906 (as *A. Perrieri* and *A. Perrieri* var. *antennoides*); Rodríguez-Rosillo, 1914 (as *A. Perrieri* var. *antenoides*).
R3: Alvarez, 1993 (as *N. perrieri*).
R4: Ramil, 1988 (as *N. antennina* var. *irregularis*).
R5: Billard, 1906 (as *Antennularia Perrieri*); Da Cunha, 1944; Da Cunha, 1950 (both as *N. perrieri*).
R6: Billard, 1906; Templado *et al*., 1993.
R7: García-Carrascosa, 1981 (as *N. antenina*); Templado *et al*., 1993; Medel and Vervoort, 1995; Medel, in prep.
R8: García-Carrascosa, 1981 (as *N. antenina*).
R10: Roca, 1986; Roca, 1989b (both as *N. perrieri*).

Nemertesia ramosa (Lamarck, 1816) (C:g)
R1: Aguirrezabalaga *et al*., 1988 (as var. *plumularoides*); Altuna and García-Carrascosa, 1990 (as var. *plumularoides*); Altuna, 1994a.
R2: Rioja, 1905; Arévalo, 1906; Rodríguez-Rosillo, 1914 (all as

Antennularia).
R3: Alvarez, 1993.
R4: Pictet and Bedot, 1900 (as *Antennularia*); Chas and Rodríguez, 1977; Estrada, 1979; Urgorri and Besteiro, 1983; Ramil, 1988.
R5: Nobre, 1931; Da Cunha, 1944; Da Cunha, 1950.
R6: Carus, 1884 (as *N. Janini*); Arévalo, 1906; Billard, 1906 (both as *Antennularia*); Van Praet, 1979 (as *N. janini*); Ramil and Vervoort, 1992a.
R7: García-Carrascosa, 1981; Templado *et al.*, 1986; Medel and Vervoort, 1995; Medel, in prep.
R8: Rioja, 1905; Arévalo, 1906; Rodríguez-Rosillo, 1914 (all as *Antennularia*); García-Carrascosa, 1981; García-Carrascosa *et al.*, 1987; Medel and Vervoort, 1995; Medel, in prep.
R9: Maluquer, 1916; Gili, 1979; Estrada, 1980; Gili, 1982; Gili *et al.*, 1984; Gili, 1986;.
R10: De Buen, 1916; De Buen, 1934; Roca, 1986; Roca, 1989b.

Nemertesia tetrasticha (Meneghini, 1845) (M:g)
R7: Rioja, 1905 (as *N. tetrastica*); Arévalo, 1906 (as *A. tetrasticha*); Rodríguez-Rosillo, 1914 (as *N. tetrastica*).
R8: García-Carrascosa, 1981; García-Carrascosa *et al.*, 1987 (both also as *N. disticha*).

Nemertesia ventriculiformis (Marktanner-Turneretscher, 1890) (AM:g)
R1: Altuna, 1994a.
R6: Ramil and Vervoort, 1992a.

Plumularia Lamarck, 1816

Plumularia falcicula Ramil and Vervoort, 1992 (X:g)
R6: Ramil and Vervoort, 1992a.

Plumularia filicula Allman, 1877 (TA`:g)
R6: Ramil and Vervoort, 1992a.

Plumularia setacea (Linnaeus, 1758) (C:g)
R1: Altuna *et al.*, 1983; Isasi, 1985; Isasi and Saiz, 1986; Aguirrezabalaga *et al.*, 1988; Altuna and García-Carrascosa, 1990; Altuna, 1994a.
R2: Rioja, 1905; Arévalo, 1906; Rodríguez-Rosillo, 1914.
R3: García-Corrales *et al.*, 1978; Lombas and Anadón, 1985; Anadón, 1988; Alvarez, 1993.
R4: Rioja, 1905; Rodríguez-Rosillo, 1914; Chas and Rodríguez, 1977; Estrada, 1979; Ramil, 1988.
R5: Nobre, 1931; Da Cunha, 1944; Da Cunha, 1950.
R6: Billard, 1906; Ramil and Vervoort, 1992a; Medel and Vervoort, 1995; Medel, in prep.
R7: García-Carrascosa, 1981; Medel and Vervoort, 1995; Medel, in prep.
R8: García-Corrales *et al.*, 1978; García-Carrascosa, 1981.
R9: De Haro, 1965; Gili, 1979; García-Carrascosa, 1981; Gili, 1981; Gili, 1982; Bibiloni and Cornet, 1982; Gili *et al.*, 1984; Gili and Castelló, 1985; Gili, 1986; Llobet *et al.*, 1991.
R10: Gili and García-Rubíes, 1985 (also as f. *epizoica*); Roca and Moreno, 1985; Roca, 1986.

Polyplumaria G.O. Sars, 1874

Polyplumaria flabellata G.O. Sars, 1874 (AM:g)
R1: Aguirrezabalaga *et al.*, 1984; Altuna and García-Carrascosa, 1990; Altuna, 1994a.
R2: Rioja, 1905; Arévalo, 1906; Rodríguez-Rosillo, 1914 (all as *P. cantabra* and *P. flavellata*).
R3: Alvarez, 1993.
R4: Pictet and Bedot, 1900.
R5: Da Cunha, 1944.
R6: Ramil and Vervoort, 1992a; Medel and Vervoort, 1995; Medel, in prep.

Pseudoplumaria Ramil and Vervoort, 1992

Pseudoplumaria marocana (Billard, 1930) (A:g)
R6: Ramil and Vervoort, 1992b.
R7: Medel and Vervoort, 1995; Medel, in prep.
– The record by Medel and Vervoort (1995) in R7 is the first for the Mediterranean Sea at the Algeciras Bay.

Pseudoplumaria sabinae Ramil and Vervoort, 1992 (X:g)
R6: Ramil and Vervoort, 1992b.

Superfamily Sertularioidea Hincks, 1868

Family Sertulariidae Hincks, 1868

Abietinaria Kircherpauer, 1864

Abietinaria abietina (Linnaeus, 1758) (C:g)
R1: Vervoort, 1985.
R3: Alvarez, 1993.
R4: Estrada, 1979; Ramil, 1988.
R5: Nobre, 1931 (as *Sertularia*); Da Cunha, 1944; Da Cunha, 1950.

Amphisbetia Agassiz, 1862

Amphisbetia operculata (Linnaeus, 1758) (CT:mg)
R1: Altuna *et al.*, 1983; Aguirrezabalaga *et al.*, 1984; Isasi, 1985; Isasi and Saiz, 1986; Altuna and García-Carrascosa, 1990; Altuna, 1994a.
R2: Rioja, 1905; Rodríguez-Rosillo, 1914 (both as *Sertularia*).
R3: García-Corrales *et al.*, 1981; Alvarez, 1993.
R4: Alvarez, 1993 (as *Sertularia*) ; Chas and Rodríguez, 1977; Estrada, 1979; Urgorri and Besteiro, 1983; Ramil, 1988.
R5: Nobre, 1931 (as *Sertularia*); Da Cunha,1944; Da Cunha, 1950.
R7: Medel, in prep.
R9: Gili, 1986.

Diphasia L. Agassiz, 1862

Diphasia attenuata (Hincks, 1866) (TA;g)
R2: Rioja, 1905; Rodríguez-Rosillo, 1914 (as *Diphasia attennata*).
R5: Da Cunha, 1944 (as *Nigellastrum attenuatum*).
R6: Medel-Soteras, *et al.*, 1991; Ramil and Vervoort, 1992a (also var. *robusta*); Medel, in prep.

Diphasia delagei Billard, 1912 (A;g)
R6: Medel, in prep.

Diphasia margareta (Hassall, 1841) (AM;g)
R1: Aguirrezabalaga *et al.*, 1988; Altuna and García-Carrascosa, 1990; Altuna, 1994a.
R2: Rioja, 1905; Rodríguez-Rosillo, 1914 (both as *D. pinaster*).
R3: Pictet and Bedot, 1900 (as *D. pinaster*); Alvarez, 1993.
R4: Allman, 1874; Pictet and Bedot, 1900 (both as *D. pinaster*); Chas and Rodríguez, 1977 (as *D. atenuata*); Ramil, 1988.
R5: Nobre, 1931 (as *D. pinaster*); Da Cunha, 1944 (as *Nigellastrum pinaster*).
R6: Billard, 1906; Leloup, 1940 (both as *D. pinaster*); Ramil and Vervoort, 1992a; Medel, in prep.
R7: Templado *et al.*, 1986; Medel, in prep.
R8: García-Corrales *et al.*, 1981.

Diphasia nigra (Pallas, 1766) (B`:g)
R1: Browne, 1907.
R2: Rioja, 1905; Rodríguez-Rosillo, 1914 (both as *D. pinnata*).
R3: Alvarez, 1993.

Diphasia pinastrum (Cuvier, 1830) (TA`:g)
R1: Aguirrezabalaga *et al.*, 1984; Altuna and García-Carrascosa, 1990; Altuna, 1994a.
R2: Rioja, 1905; Rodríguez-Rosillo, 1914 (both as *D. alata*).
R3: Alvarez, 1993.
R4: Pictet and Bedot, 1900 (as *D. alata*).
R6: Ramil and Vervoort, 1992a.

Diphasia rosacea (Linnaeus, 1758) (TA`:g)
R1: Aguirrezabalaga *et al.*, 1988; Altuna and García-Carrascosa, 1990; Altuna, 1994a.
R4: Estrada, 1979; Ramil, 1988.
R5: Da Cunha, 1944; Da Cunha, 1950 (both as *Nigellastrum rosaceum*).
R6: Ramil and Vervoort, 1992a; Medel, in prep.

Dynamena Lamouroux, 1812

Dynamena disticha (Bosc, 1802) (C:g)
R3: García-Corrales *et al*., 1981 (as *D. cornicina*).
R5: Da Cunha, 1944 (as *D. cornicina*).
R6: Medel-Soteras, *et al*., 1991; Medel, in prep.
R7: García-Carrascosa, 1981 (as *D. cornicina*).
R8: García-Corrales *et al*., 1981; García-Carrascosa, 1981; García-Carrascosa *et al*., 1987 (all as *D. cornicina*).
R9: García-Carrascosa, 1981 (as *D. cornicina*); Gili, 1982 (also as *D. cavolinii*); Gili *et al*., 1984 (also as *D. cavolinii*) ; Gili and Castelló, 1985 (as *D. cavolini*); Gili, 1986 (as *D. cornicina* and *D. cavolini*); García-Rubíes, 1987.
R10: Gili and García-Rubíes, 1985 (as *D. cornicina*); Roca and Moreno, 1985; Roca, 1986; Roca, 1987.

Dynamena pumila (Linnaeus, 1758) (B:g)
R1: Altuna *et al*., 1983; Isasi, 1985; Isasi and Saiz, 1986; Altuna and García-Carrascosa, 1990; Altuna, 1994a.
R2: Rioja, 1905; Rodríguez-Rosillo, 1914 (both as *Sertularia*).
R3: García-Corrales *et al*., 1981; Lombas and Anadón, 1985.
R4: Chas and Rodríguez, 1977; Estrada, 1979; Ramil, 1988.
R5: Nobre, 1931; Da Cunha, 1944; Da Cunha, 1950.

Hydrallmania Hincks, 1868

Hydrallmania falcata (Linnaeus, 1758) (B':g)
R6: Ramil and Vervoort, 1992a; Medel, in prep.

Salacia Lamouroux, 1816

Salacia articulata (Pallas, 1766) (X:g)
R3: Alvarez, 1993.

Salacia desmoides (Torrey, 1902) (IP:g)
R1: Isasi, 1985; Isasi and Saiz, 1986; Aguirrezabalaga *et al*., 1987 (as *S. dubia*); Altuna and García-Carrascosa, 1990 (also as *S. dubia*); Altuna, 1994a.
R3: García-Corrales *et al*., 1981 (as *S. cantabrica*).
R4: Ramil, 1988.
R6: Medel-Soteras *et al*., 1991; Medel, in prep.
R7: García-Carrascosa, 1981; Medel-Soteras *et al*., 1991; Medel, in prep.
R8: García-Carrascosa, 1981; García-Carrascosa *et al*., 1987.
R9: García-Carrascosa, 1981; Gili, 1986 (as *S. dubia*).
R10: Gili and García-Rubíes, 1985 (as *S. dubia*); Roca, 1987.

Salacia thuja (Linnaeus, 1758) (B':g)
R5: Da Cunha, 1944 (as *Thuiaria*).

Sertularella Gray, 1848

Sertularella crassicaulis (Heller, 1868) (M:g)
R9: Bibiloni and Cornet, 1982; Gili, 1982; Gili *et al*., 1984; Gili and Castelló, 1985; Gili, 1986.

Sertularella cubica García-Corrales, Aguirre-Ichaurbe and González-Mora, 1981. (X:g)
R8: García-Corrales *et al*., 1981.
– Probably a synonym of one of the species of *Sertularella*.

Sertularella cylindritheca (Allman, 1888) (TA:g)
R1: Aguirrezabalaga *et al*., 1986; Altuna and García-Carrascosa, 1990; Altuna, 1994a.
R2: Rodríguez-Rosillo, 1914.
R6: Medel, in prep.
R7: Templado *et al*., 1986; Medel, in prep.
R8: García-Corrales *et al*., 1981.

Sertularella ellisii (Deshayes and Milne-Edwards, 1863) (TA:g)
R1: Altuna *et al*., 1983; Isasi, 1985 (as *S. gaudichaudi*); Isasi and Saiz, 1986 (as *S. fusiformis* and *S. gaudichaudi*); Altuna and García-Carrascosa, 1990 (as *S. fusiformis* and *S. gaudichaudi*); Altuna, 1994a (also as *S. fusiformis*).
R3: García-Corrales *et al*., 1981 (as *S. simplex*, *S. gaudichaudi* and *S. arbuscula*); Alvarez, 1993 (as *S. gaudichaudi*).
R4: Ramil, 1988 (also as *S. fusiformis*); Ramil *et al*., 1992 (also as *S. fusiformis*).
R5: Da Cunha, 1950 (as *S. fusiformis*).
R6: Medel-Soteras *et al*., 1991 (as *Sertularella* sp. and *S. ornata*); Medel, in prep.
R7: García-Carrascosa, 1981 (as *S. ellisi*, *S. ellisi* f. *ornata* and *S. lagenoides*); Templado *et al*., 1986 (as *S. gaudichaudi*); Altuna, 1992; García-Raso *et al*., 1992 (as *S. gadichaudi*); Medel, in prep.
R8: García-Carrascosa, 1981 (as *S. ellisi*, *S. ellisi* f. *ornata* and *S. lagenoides*); García-Corrales *et al*., 1981 (as *S. gaudichaudi*, *S. robusta*, *S. tenella*, *S. simplex* and *S. arbuscula*); García-Carrascosa *et al*., 1987 (as *S. gaudichaudi*, f. *lagenoides* and f. *ornata* and f. *ellisi*).
R9: Camp and Ros, 1980; García-Carrascosa, 1981 (as *S. ellisi*, *S. ellisi* f. *ornata* and *S. lagenoides*); Bibiloni and Cornet, 1982; Gili, 1982; Gili *et al*., 1984; Gili and Castelló, 1985 (also as *S. gaudichaudi*, and *S. fuiformis*); Gili, 1986 (also as *S. fusiformis*).
R10: Gili and García-Rubíes, 1985 (as *S. gaudichaudi*); Roca, 1986 (as *S. gaudichaudi*, *S. fusiformis* and *S. arbuscula*); Roca, 1989a (also as *S. gaudichaudi*); Roca, 1989b (also as *S. gaudichaudi*).

Sertularella gayi (Lamouroux, 1821) (C:g)
R1: Aguirrezabalaga *et al*., 1984; Altuna and García-Carrascosa, 1990; Altuna, 1994a.
R3: Alvarez, 1993.
R4: Allman, 1874 (as *S. Gayi*); Urgorri and Besteiro, 1983; Ramil, 1988; Ramil *et al*., 1992.
R5: Billard, 1906; Nobre, 1931 (as *S. Gayi*); Da Cunha, 1944; , Da Cunha 1950;
R6: Billard, 1906; Ramil and Vervoort, 1992a (also ssp. *robusta*); Medel, in prep.
R7: Templado *et al*., 1986; Ramil and Vervoort, 1992a; Medel-Soteras *et al*., 1991; Medel, in prep.
R8: García-Carrascosa, 1981; García-Carrascosa *et al*., 1987.
R9: Gili, 1986.
R10: De Buen, 1934; Roca, 1986; Roca, 1989a; Roca, 1989b.

Sertularella mediterranea Hartlaub, 1901 (C:g)
R1: Isasi, 1985; Isasi and Saiz, 1986 (both as *S. picta*); Aguirrezabalaga, *et al*., 1987 (as *S. gaudichaudi* f. *mediterranea* and *S. mediterranea*); Altuna and García-Carrascosa, 1990 (as *S. picta*); Altuna, 1994a.
R4: Estrada, 1979 (as *S. polyzonias*), Parapar, 1986 (as *S. picta*); Ramil, 1988; Ramil, Parapar and Vervoort, 1992.
R5: Da Cunha, 1944; Da Cunha, 1950.
R6: Medel-Soteras *et al*., 1991; Medel, in prep.
R7: García-Carrascosa, 1981; Aguirrezabalaga *et al*., 1987 (in text as *S. gaudichaudi* f. *mediterranea*); Medel, in prep.
R8: García-Corrales *et al*., 1981 (as *S. picta*); García-Carrascosa, 1981; García-Carrascosa *et al*., 1987 (as S. *gaudichaudi* f. *mediterranea*).
R9: García-Carrascosa, 1981; Gili and Castelló, 1985 (as *S. polyzonias mediterranea*); Gili, 1986.
R10: Gili and García-Rubíes, 1985 (as *S. gaudichaudi* f. *mediterranea*); Roca, 1986 (as *S. picta*); Roca, 1989a.
– Millard (1975) includes Australasia in the area of distribution of *S. mediterranea*, but Ramil *et al* (1992) have been unable to verify this account, so the cosmopolitanism of this species is doubtful.

Sertularella polyzonias (Linnaeus, 1758) (C:g)
R1: Aguirrezabalaga *et al*., 1987; Altuna and García-Carrascosa, 1990; Altuna, 1994a.
R2: Rioja, 1905; Rodríguez-Rosillo, 1914.
R3: García-Corrales *et al*., 1981 (also as *S. gayi*); Lombas and Anadón, 1985; Anadón, 1988; Alvarez, 1993.
R4: Pictet and Bedot, 1900 (as *Sertularia*); Chas and Rodríguez, 1977; Estrada, 1979; Ramil, 1988; Ramil *et al*., 1992.
R5: Allman, 1874; Nobre, 1931; Da Cunha, 1944; Da Cunha, 1950.
R6: Billard, 1906.
R7: Templado *et al*., 1986; Altuna, 1992; Medel, in prep.
R8: Rioja, 1905; Rodríguez-Rosillo, 1914; García-Corrales *et al*., 1981 (also as *S. gayi*); García-Carrascosa, 1981; García-Carrascosa *et al*., 1987.
R9: Gili, 1979; Camp and Ros, 1980 (as cf.); Gili, 1981; Gili, 1982; Gili *et al*., 1984; Gili and Castelló, 1985; Llobet *et al*., 1991.
R10: De Buen, 1916; Gili and García-Rubíes, 1985 (as f. *ellisi*); Roca, 1986; Roca, 1989a; Roca, 1989b.

Sertularella tenella (Alder, 1856) (C;g)
R1: Altuna and García-Carrascosa, 1990.
– We consider that the record of *Sertularella rugosa* (L., 1758), by De Haro (1965) in R9 is not valid; but we are not able to identify what species of *Sertularella* is, because of the poor description and drawing.

Sertularia Linnaeus, 1758

Sertularia cupressina (Linnaeus, 1758) (C;g)
R2: Rioja, 1905 (as *S. argentea*); Rodríguez-Rosillo, 1914 (as *Thuiaria cupressina* and *T. argentea*).
R4: Ramil, 1988.

Sertularia distans Lamouroux, 1816 (CT;g)
R1: Altuna *et al*., 1983; Isasi, 1985; Isasi and Saiz, 1986; Altuna and García-Carrascosa, 1990; Altuna, 1994a.
R2: Rodríguez-Rosillo, 1914.
R3: García-Corrales *et al*., 1981; Anadón, 1988.
R4: Ramil, 1988.
R5: Nobre, 1931 (as *S. gracilis*); Da Cunha, 1944; Da Cunha, 1950 (both as *Tridentata gracilis*).
R6: Medel-Soteras *et al*., 1991; Medel, in prep.
R7: García-Carrascosa, 1981; Altuna, 1992; Medel-Soteras *et al*., 1991; Medel, in prep.
R8: Cornelius, 1979; García-Carrascosa, 1981; García-Corrales *et al*., 1981; García-Carrascosa *et al*., 1987.
R9: García-Carrascosa, 1981; Gili and Castelló, 1985; Gili, 1986; García-Rubíes, 1987; Llobet *et al*., 1991.
R10: Roca, 1986.

Sertularia marginata (Kirchenpauer, 1864) (CT;g)
R3: García-Corrales *et al*., 1981.
R6: Medel-Soteras *et al*., 1991; Medel, in prep.

Sertularia perpusilla Stechow, 1919 (M;g)
R7: García-Carrascosa, 1981; García-Raso *et al*., 1992.
R8: García-Corrales *et al*., 1981 (as *S. turbinata*); García-Carrascosa, 1981.
R9: De Haro, 1965; García-Carrascosa, 1981; Bibiloni and Cornet, 1982; Gili, 1982; Gili *et al*., 1984; Gili and Castelló, 1985; Gili, 1986; García-Rubíes, 1987.
R10: Roca and Moreno, 1985; Gili and García-Rubíes, 1985; Roca, 1986; Roca, 1987.

Tamarisca Kudelin, 1914

Tamarisca tamarisca Linnaeus, 1758 (B`;g)
R1: Aguirrezabalaga *et al*., 1988; Altuna and García-Carrascosa, 1990; Altuna, 1994a.
R2: Rioja, 1905; Rodríguez-Rosillo, 1914 (both as *Diphasia*).

Family Syntheciidae Marktanner-Turneretscher, 1890

Synthecium Allman, 1872

Synthecium evansi (Ellis and Solander, 1786) (AM;g)
R6: Ramil and Vervoort, 1992a; Medel, in prep.
R7: Medel, in prep.
R8: García-Corrales *et al*., 1981; García-Corrales, 1979; García-Carrascosa *et al*., 1987.
R9: De Haro, 1965; Gili, 1982; Bibiloni and Cornet, 1982; Gili *et al*., 1984; Gili and Castelló, 1985; Gili, 1986.
R10: Gili and García-Rubíes, 1985; Roca, 1986; Roca, 1989b.
– García-Carrascosa (1981) considers De Haro (1965) citation doubtful because of wanting description and synonym.

Suborder Proboscoida Broch, 1909

Superfamily Campanulariidea Johnston, 1836

Family Campanulariidae Johnston, 1836

Campanularia Lamarck, 1816

Campanularia hincksii Alder, 1856 (C;g)
R1: Altuna *et al*., 1983; Altuna, 1994a.
R2: Rioja, 1905; Rodríguez-Rosillo, 1914 (both as *C. Hincksii*); Altuna and García-Carrascosa, 1990.
R3: Alvarez, 1993.
R4: Polo *et al*., 1979; Estrada,1979; Estrada, 1980; Ramil, 1988 (all as *C. hincksi*).
R5: Da Cunha, 1950 (as *C. hincksi*).
R6: Billard, 1906 (as *C. Hincksii*); Ramil and Vervoort, 1992a; Medel, in prep.
R7: García Carrascosa, 1981 (as *C. hincksi*); Templado *et al*., 1986; Altuna, 1992; Medel, in prep.
R8: García-Corrales *et al*., 1978; García-Carrascosa, 1981 (also as *C. alta*); García-Carrascosa *et al*., 1987 (as *C. alta*).
R9: Gili, 1979; García-Carrascosa, 1981 (as *C. hincksi*); Gili, 1981; Bibiloni and Cornet, 1982 (as *Orthopyxis hincksi*); Gili, 1982 (also as *C. alta*); Gili *et al*., 1984 (as *C. hincksi* and *C. alta*); Gili and Castelló, 1985 (as *C. hincksi*); Gili, 1986 (as *C. hincksi*); Llobet *et al*., 1991.
R10: Gili and García-Rubíes, 1985; Roca and Moreno, 1985; Roca, 1986; Roca, 1987; Roca, 1989b.

Campanularia raridentata Alder, 1862 (AM;g)
R9: Gili and Castelló, 1985 (as *C. hemisphaerica raridentata*); Gili, 1986; Llobet *et al*., 1991.
R10: Gili and García-Rubíes, 1985.

Campanularia volubilis (Linnaeus, 1758) (B`;g)
R1: Aguirrezabalaga *et al*., 1986; Altuna and García-Carrascosa, 1990; Altuna, 1994a (as cf.).
R2: Rioja, 1905; Rodríguez-Rosillo, 1914.
R5: Da Cunha, 1944.

Clytia Lamouroux, 1812

Clytia gracilis (M. Sars, 1850) (C;m)
R1: Isasi, 1985 (as *C. hemisphaerica* f. *gracilis*); Isasi and Saiz, 1986 (as *C. pelagica*) ; Altuna, 1994a.
R2: Rioja, 1905; Rodríguez-Rosillo, 1914 (both as *Gonothyraea*).
R3: García-Corrales *et al*., 1978 (as *Laomedea (Clytia) pelagica*); Alvarez, 1993.
R4: Ramil, 1988 (as *C. pelagica*); Alvarez, 1993 (as *Gonothyraea*).
R5: Da Cunha,1944; Da Cunha, 1950 (both as *Laomedea*).
R6: Ramil and Vervoort, 1992a; Medel, in prep.
R7: Medel, in prep.
R8: García-Corrales *et al*., 1978 (as *L. (Clytia) pelagica*)
R9: Gili, 1979 (as *G. gracilis*); Bibiloni and Cornet, 1982 (as *Gonothyraea*); Gili, 1982 (as *L. (Clytia) pelagica*); Gili *et al*., 1984 (as *L. pelagica*); Gili, 1986 (as *L. pelagica*).
R10: Gili and García-Rubíes, 1985 (as *L. pelagica*).

Clytia hemisphaerica (Linnaeus, 1767) (C;m)
R1: Altuna *et al*., 1983; Isasi, 1985; Isasi and Saiz, 1986 (as *C. hemisphaerica* f. *johnstoni*); Altuna and García-Carrascosa, 1990; Altuna, 1994a.
R2: Rioja, 1905; Rodríguez-Rosillo, 1914 (both as *C. johnstoni*).
R3: García-Corrales *et al*., 1978; Moreno and Fernández-Alcaraz, 1984a (as *Phialidium*); Lombas and Anadón, 1985 (as *C. Johnstoni*); Anadón, 1988; Alvarez, 1993.
R4: Chas and Rodríguez, 1977; Estrada, 1979 (both as *C. johnstoni*); Ramil, 1988; Gili *et al*., 1991; Alvarez, 1993.
R5: Nobre, 1931 (as *C. Johnstoni*); Da Cunha, 1944 (as *C. raridentata* and *C. johnstoni*); Da Cunha, 1950 (as *C. johnstoni*).
R6: Billard, 1906 (as *C. Johnstoni*).
R7: García-Carrascosa, 1981 (as *C. hemiesphaerica*); Gil, 1981 (as *Phialidium*); Altuna, 1992; García-Raso *et al*., 1992 (as *C. haemisphaerica*); Medel, in prep.
R8: Vives, 1966 (as *Phialidium (Clytia) hemisphaericum*); García-Corrales *et al*., 1978; García-Carrascosa, 1981 (as *C. hemiesphaerica*); García-Carrascosa *et al*., 1987.
R9: De Haro, 1965 (as *C. johnstoni*); Gili, 1979; Camp and Ros, 1980 (as *C. johnstoni*); Gil, 1981 (as *Phialidium*); Gili, 1981; Bibiloni and Cornet, 1982 (also as *C. johnstoni*); Gili, 1982; Gili *et al*., 1984; Gili and Castelló, 1985; Castelló, 1986; Gili, 1986; Riera *et al*., 1986; García-Rubíes, 1987; Gili *et al*., 1987a; Gili *et al*., 1988; Llobet *et al*., 1991.
R10: Riera and Blasco, 1967; Gil, 1981 (both as *Phialidium*); Gili and García-Rubíes, 1985 (as *C. hemisphaerica*); Roca and Moreno, 1985; Roca, 1986; Roca, 1987; Roca, 1989b.

Clytia linearis (Thorneley, 1899) (CT:m)
R1: Isasi, 1985; Isasi and Saiz, 1986; Aguirrezabalaga *et al.*, 1987; Altuna and García-Carrascosa, 1990; Altuna, 1994a; Altuna, 1994b.
R5: Da Cunha, 1944.
R6: Medel, in prep.
R7: García-Corrales *et al.*, 1978; García-Carrascosa, 1981 (both as *C. gravieri*); Templado *et al.*, 1986; Medel, in prep.
R8: García-Corrales *et al.*, 1978; García-Carrascosa, 1981 (both as *C. gravieri*); García-Carrascosa *et al.*, 1987.
R9: García-Carrascosa, 1981; Gili and García-Rubíes, 1985 (both as *C. gravieri*); Gili, 1986; García-Rubíes, 1987; Llobet *et al.*, 1991.
R10: Roca, 1986; Barangé and Gili, 1987.

Clytia noliformis McCrady, 1857 (TA:m)
R9: Gili, 1986; Llobet *et al.*, 1991.
– Cornelius (1975) considers this epecies synonymous with *Clytia hemisphaerica*, it is considered valid by Boero *et al.* (1993).

Clytia paulensis (Vanhöffen, 1910) (C:m)
R1: Isasi, 1985; Isasi and Saiz, 1986; Aguirrezabalaga *et al.*, 1987; Altuna and García-Carrascosa, 1990; Altuna, 1994a.
R3: Alvarez, 1993.
R4: Ramil, 1988.
R6: Medel, in prep.
R7: García-Carrascosa, 1981; Medel, in prep.
R8: García-Carrascosa, 1981; García-Carrascosa *et al.*, 1987.
R9: García-Carrascosa, 1981; Gili, 1986; Llobet *et al.*, 1991.
R10: Roca, 1986; Roca, 1989b.

Gonothyraea Allman, 1864

Gonothyraea loveni (Allman, 1859) (C:g)
R1: Isasi, 1985; Isasi and Saiz, 1986; Altuna and García-Carrascosa, 1990; Altuna, 1994a.
R9: Gili, 1982 (as *Laomedea (Gonothyraea)*); Gili *et al.*, 1984 (as *Laomedea*); Gili, 1986; Llobet *et al.*, 1991.

Hartlaubella Poche, 1914

Hartlaubella gelatinosa (Pallas, 1766) (AM:g)
R5: Da Cunha, 1944 (as *Laomedea gelatinosa*).

Laomedea Lamouroux, 1812

Laomedea angulata Hincks, 1861 (TA:g)
R2: Rioja, 1905; Rodríguez-Rosillo, 1914 (both as *Campanularia*).
R4: Ramil, 1988; Polo *et al.*, 1979.
R7: García-Carrascosa, 1981.
R8: García-Carrascosa, 1981.
R9: García-Carrascosa, 1981; Gili, 1982; Gili *et al.*, 1984; Gili and Castelló, 1985 (in text as *Obelia dichotoma angulata*); Gili, 1986.
– García-Carrascosa (1981) maintains that Da Cunha's (1944) record of *Campanularia angulata* is *Laomedea calceolifera*.

Laomedea calceolifera (Hincks, 1871) (TA:g)
R1: Isasi, 1985; Isasi and Saiz, 1986; Aguirrezabalaga *et al.*, 1987; Aguirrezabalaga *et al.*, 1988; Altuna and García-Carrascosa, 1990; Altuna, 1994a.
R3: Alvarez, 1993 (as cf.).
R4: Ramil, 1988.
R5: Da Cunha, 1944 (as *L. angulata* and *L. conferta*).
R7: Altuna, 1992; Medel, in prep.
R8: García-Carrascosa, 1981.
R9: Gili, 1986.
R10: Roca, 1986; Barangé and Gili, 1987.

Laomedea flexuosa Alder, 1857 (TA:g)
R1: Altuna and García-Carrascosa, 1990; Altuna, 1994a.
R2: Rioja, 1905; Rodríguez-Rosillo, 1914 (both as *Campanularia*).
R4: Rioja, 1905 (as *Campanularia*); Rodríguez-Rosillo, 1914 (as *Campanularia*); Chas and Rodríguez, 1977; Estrada, 1979; Urgorri and Besteiro, 1983; Ramil, 1988; Alvarez, 1993 (as *C.* cf. *flexuosa*).
R5: Nobre, 1931 (as *Campanularia*); Da Cunha, 1944; Da Cunha, 1950.
R8: García-Carrascosa, 1981; García-Carrascosa *et al.*, 1987.
R9: Gili, 1979; Gili, 1981; Bibiloni and Cornet, 1982; Gili, 1982; Gili *et al.*, 1984; Gili, 1986.
R10: Mateu, 1984.

Laomedea pseudodichotoma Vervoort, 1959 (A:g)
R3: Alvarez, 1993.
R6: Ramil and Vervoort, 1992a.

Obelia Peron and Lesueur, 1810

Obelia bidentata Clarke, 1875 (C:m)
R1: Isasi, 1985; Isasi and Saiz, 1986; Aguirrezabalaga *et al.*, 1987; Altuna and García-Carrascosa, 1990; Altuna, 1994a.
R3: Alvarez, 1993.
R4: Billard, 1906 (as *O. bifurca*); Ramil, 1988.
R5: Da Cunha, 1944, 1950 (as *L. neglecta*).
R6: Billard, 1906 (as *O. bifurca*); Ramil and Vervoort, 1992a.
R7: García-Carrascosa, 1981 (as *O. bicuspidata*).
R8: García-Corrales *et al.*, 1978 (as *Laomedea (Obelia) bicuspidata*); García-Carrascosa, 1981 (as *O. bicuspidata*); García-Carrascosa *et al.*, 1987.
R9: Gili, 1979; García-Carrascosa, 1981 (as *O. bicuspidata*); Gili, 1981, Gili, 1982 (as *O. bicuspidata*); Gili *et al.*, 1984 (as *O. bicuspidata*); Gili, 1986.
R10: Roca, 1986; Roca, 1989b.

Obelia dichotoma (Linnaeus, 1758) (C:m)
R1:Altuna *et al.*, 1983; Isasi, 1985; Isasi and Saiz, 1986; Altuna and García-Carrascosa, 1990; Altuna, 1994a.
R2: Rioja, 1905; Rodríguez-Rosillo, 1914.
R3: García-Corrales *et al.*, 1978 (as *Laomedea (Obelia)*); Anadón, 1988; Alvarez, 1993.
R4: Estrada, 1979, Estrada, 1980 (as *Laomedea*); Ramil, 1988.
R6: Billard, 1906; Ramil and Vervoort, 1992a; Medel, in prep.
R7: Altuna, 1992; Medel, in prep.
R8: García-Carrascosa, 1981; García-Corrales *et al.*, 1978 (as *Laomedea (Obelia)*);García Carrascosa *et al.*, 1987.
R9: Gili, 1979; García-Carrascosa, 1981; Gili, 1981; Bibiloni and Cornet, 1982 (as *Laomedea*); Gili, 1982; Gili *et al.*, 1984; Gili and Castelló, 1985; Gili, 1986; García-Rubíes, 1987; Llobet *et al.*, 1991.
R10: De Buen, 1916; Gili and García-Rubíes, 1985; Roca, 1986; Roca, 1989b.

Obelia geniculata (Linnaeus, 1758) (C:m)
R1: Isasi, 1985; Isasi and Saiz, 1986 : Altuna and García-Carrascosa, 1990; Altuna, 1994a.
R2: Rioja, 1905; Rodríguez-Rosillo, 1914.
R3: García-Corrales *et al.*, 1978; Anadón, 1988.
R4: Estrada, 1979; Chas and Rodríguez, 1977; Ramil, 1988; Alvarez, 1993.
R5: Nobre, 1931; Da Cunha, 1944; Da Cunha, 1950 (as *Laomedea*).
R6: Medel, in prep.
R7: García-Carrascosa, 1981; Altuna, 1992; García-Raso *et al.*, 1992; Medel, in prep.
R8: García-Corrales *et al.*, 1978; García-Carrascosa, 1981; García-Carrascosa *et al.*, 1987.
R9: De Haro, 1965; Gili, 1979; Camp and Ros, 1980; García-Carrascosa, 1981; Gili, 1981; Gili, 1982; Gili *et al.*, 1984; Gili and Castelló, 1985; Gili, 1986; García-Rubíes, 1987; Llobet *et al.*, 1991.
R10: Roca and Moreno, 1985; Roca, 1986; Roca, 1987.

Obelia longissima (Pallas, 1766) (C:m)
R1: Altuna, 1994a.
R4: Chas and Rodríguez, 1977; Ramil, 1988.
R5: Nobre, 1931; Leloup, 1940; Da Cunha, 1944 (as *Laomedea*).

Orthopyxis L. Agassiz, 1862

Orthopyxis asymmetrica Stechow, 1919 (M:mg)
R7: García-Carrascosa, 1981 (as *Campanularia*); García-Raso *et al.*, 1992 (as *C. asymetrica*).
R8: García-Carrascosa, 1981 (as *Campanularia*).
R9: García-Carrascosa, 1981; Gili, 1982; Gili *et al.*, 1984; Gili and Castelló, 1985; Gili, 1986; García-Rubíes, 1987 (all as *Campanularia*).

R10: Roca and Moreno, 1985; Roca, 1986; Roca, 1987.
– Cornelius (1975) considers *Campanularia assymetrica* Stechow, 1919 a synonym of *Orthopyxis integra*.

Orthopyxis crenata (Hartlaub, 1901) (CT;mg)
R1: Isasi, 1985; Isasi and Saiz, 1986; Altuna and García-Carrascosa, 1990; Altuna, 1994a.
R3: García-Corrales *et al.*, 1978 (as *Campanularia*).
R4: Ramil, 1988.
R6: Medel, in prep.
R8: García-Corrales *et al.*, 1978 (also as *C. delicata* ?); García-Carrascosa, 1981 (all as *Campanularia*).
R9: García-Carrascosa, 1981 (as *Campanularia*); Gili, 1986.
R10: Gili and García-Rubíes, 1985 (as *Campanularia*); Roca and Moreno, 1985; Roca, 1986.
– According to Cornelius (1982) and Altuna (1994), *Campanularia delicata* cited by García-Corrales, *et al.*, (1978), could be a synonym of *Orthopyxis crenata*. Nevertheless, García-Carrascosa (1981) Thinks that *C. delicata* from García-Corrales could be similar to *C. alta* (= *C. hincksii* following Cornelius) *but* in absence of the gonothecae this can not be decided. The known distribution of *C. delicata* is indopacific. We include, provisionally, the record of García-Corrales, *et al.*, (1978) as *O. crenata*.

Orthopyxis everta (Clarke, 1877) (CT;mg)
R8: García-Corrales *et al.*, 1978 (as *Campanularia* (*Orthopyxis*) *everta*).
R9: Llobet *et al.*, 1991 (as *Campanularia*).
– García-Carrascosa (1987) considers García-Corrales's (1978) record doubtful. Cornelius (1982) suggests that this species could be synonymous with *O. crenata*.

Orthopyxis integra (MacGillivray, 1842) (C;mg)
R1: Altuna *et al.*, 1983; Aguirrezabalaga *et al.*, 1984; Isasi, 1985; Isasi and Saiz, 1986; Altuna and García-Carrascosa, 1990; Altuna, 1994a.
R2: Rioja, 1905; Rodríguez-Rosillo, 1914 (both as *Agastra* (*Campanularia*) *caliculata*).
R3: Lombas and Anadón, 1985 (as *Campanularia*).
R4: Ramil, 1988.
R6: Medel, in prep.
R7: García-Carrascosa, 1981 (as *Campanularia*); Altuna, 1992.
R8: García-Carrascosa, 1981 (as *Campanularia*); García-Carrascosa *et al.*, 1987.
R9: Gili, 1979; Gili, 1981; Gili, 1982 (as *Campanularia*); Gili *et al.*, 1984 (as *Campanularia*); Gili and Castelló, 1985 (as *Campanularia*); Gili, 1986.
R10: Roca and Moreno, 1985; Roca, 1986.

Order Limnomedusae Kramp, 1938

Family Olindiasidae Haeckel, 1879

Monobrachium Mereschkowsky, 1877

Monobrachium parasiticum Mereschkowsky, 1877 (B;mg)
R4: Ramil, 1988.
R6: Medel, in prep.
R7: García-Raso *et al.*, 1992 (as *M. parasitum*).
R8: Besteiro *et al.* 1990.

Olindias F. Müller, 1861

Olindias phosphorica (Delle Chiaje, 1841) (TA;m)
R7: García-Raso *et al.*, 1992.
R9: Gili, 1986; Castelló, 1986.
R10: Barangé and Gili, 1987.

Orden Narcomedusae Haeckel, 1879

Family Aeginidae Gegenbaur, 1856

Solmundella Haeckel, 1879

Solmundella bitentaculata (Quoy and Gaimard, 1833) (C;m)
R3: Moreno and Fernández-Alcaraz, 1984a.
R4: Gili *et al.*, 1991.
R6: Goy, 1982.
R8: Vives, 1966; Gil, 1981.
R9: Gil, 1981; Castelló, 1986; Riera *et al.*, 1986; Gili, 1986; Gili *et al.*, 1987a; Gili *et al.*, 1988.

Family Cuninidae Bigelow, 1913

Cunina Eschscholtz, 1829

Cunina globosa Eschscholtz, 1829 (CT;m)
R9: Gil, 1981; Gili, 1986; Gili *et al.*, 1987a.

Cunina proboscidea Metschnikoff, 1871 (M;m)
R7: Ranson, 1936.

Solmissus Haeckel, 1879

Solmissus albescens (Gegenbaur, 1856) (IP;m)
R1: Ranson, 1936.
R6: Goy, 1982.
R7: Ranson, 1936.
R9: Gil, 1981; Gili, 1986; Gili *et al.*, 1987a; Gili *et al.*, 1988.
R10: Ranson, 1936.

Solmissus marshalli Agassiz and Mayer, 1902 (CT;m)
R10: Ranson, 1936.

Family Solmarisidae Haeckel, 1879

Pegantha Haeckel, 1879

Pegantha rubiginosa (Kölliker, 1853) (AM;m)
R2: Rioja, 1905; Rodríguez Rosillo, 1914 (both as *Cunina rodo-dactila*).

Solmaris Haeckel, 1879

Solmaris corona (Keferstein and Ehlers, 1861) (CT;m)
R8: Ranson, 1936.

Solmaris flavescens (Koelliker, 1853) (IP;m)
R9: Gil, 1981; Gili, 1986; Gili *et al.*, 1987a; Gili *et al.*, 1988.

Solmaris leucostyla (Will, 1844) (M;m)
R8: Vives, 1966.
R9: Castelló, 1986; Gili, 1986.

Solmaris solmaris (Gegenbaur, 1856) (M;m)
R9: Gili, 1986; Gili *et al.*, 1987a.

Order Trachymedusae Haeckel, 1866

Family Geryoniidae Eschscholtz, 1829

Geryonia Péron and Lesueur, 1810

Geryonia proboscidalis (Forskal, 1775) (X;m)
R8: Vives, 1966.

Liriope Lesson, 1843

Liriope tetraphylla (Chamisso and Eysenhardt, 1821) (CT;m)
R1: Ranson, 1936 (as *L. eurybia*).
R3: Moreno and Fernández-Alcaraz, 1984a.
R4: Gili *et al.*, 1991.
R6: Goy, 1982.
R7: Ranson, 1936 (as *L. eurybia*); Goy, 1982.
R8: Vives, 1966; Gil, 1981.
R9: Gil, 1981; Castelló, 1986; Gili, 1986; Riera *et al.*, 1986.
R10: Riera and Blasco, 1967; Gil, 1981.

Family Halicreatidae Fewker, 1882

Haliscera Vanhöffen, 1902

Haliscera bigelowi Kramp, 1947 (TA;m)
R9: Gil, 1981; Gili, 1986; Gili *et al.*, 1987a.

Haliscera minimum Fewkes, 1882 (C:m)
R5: Ranson, 1936 (as *Haliscreas papillosum*).

Family Rhopalonematidae Russell, 1953

Aglantha Haeckel, 1879

Aglantha digitale (O.F. Müller, 1766) (C:m)
R3: Ranson, 1936 (as f. *typica*).
R9: Gili, 1986.

Aglaura Péron and Lesueur, 1810

Aglaura hemistoma Péron and Lesueur, 1810 (CT:m)
R4: Gili *et al.*, 1991.
R6: Goy, 1982.
R7: Goy, 1982.
R8: Ranson, 1936; Vives, 1966.
R9: Gil, 1981; Castelló, 1986; Gili, 1986; Riera *et al.*, 1986; Gili *et al.*, 1987a; Gili *et al.*, 1988.
R10: Ranson, 1936; Riera and Blasco, 1967.

Arctapodema Dall, 1907

Arctapodema ampla (Vanhöffen, 1902) (CT:m)
R7: Ranson, 1936.

Colobolema Vanhöffen, 1902

Colobolema sericeum Vanhöffen, 1902 (C:m)
R4: Ranson, 1936.
R5: Ranson, 1936.
R6: Ranson, 1936.

Persa McCrady, 1857

Persa incolorata McCrady, 1857 (CT:m)
R3: Moreno and Fernández-Alcaraz, 1984a.
R6: Goy, 1982.
R7: Goy, 1982.
R8: Vives, 1966; Gil, 1981.
R9: Gil, 1981; Castelló, 1986 (also var. *lucerna*); Gili, 1986 (also var. *lucerna*); Riera *et al.*, 1986; Gili *et al.*, 1987a (also as f. *lucerna*); Gili *et al.*, 1988.

Ransonia Kramp, 1947

Ransonia krampi (Ranson, 1932) (TA:m)
R7: Ranson, 1936 (as *Aglanta*).
R9: Gili, 1986.

Rhopalonema Gegenbaur, 1856

Rhopalonema funerarium Vanhöffen, 1902 (CT:m)
R9: Gil, 1981; Gili, 1986; Gili *et al.*, 1987a.

Rhopalonema velatum Gegenbaur, 1856 (CT:m)
R1: Ranson, 1936.
R6: Goy, 1982.
R7: Goy, 1982.
R8: Vives, 1966; Gil, 1981.
R9: Gil, 1981; Castelló, 1986; Gili, 1986; Riera *et al.*, 1986; Gili *et al.*, 1987a; Gili *et al.*, 1988.
R10: Ranson, 1936; Riera and Blasco, 1967; Gil, 1981.

Sminthea Gegenbaur, 1856

Sminthea eurygaster Gegenbaur, 1856 (CT:m)
R8: Vives, 1966.
R9: Gili, 1986; Gili *et al.*, 1987a.

Subclass Siphonophorae Eschscholtz, 1829

Order Physonectae Haeckel, 1888

Family Agalmidae Bärndt, 1835

Agalma Eschscholtz, 1825

Agalma elegans (M. Sars, 1846) (C:g)
R3: Moreno and Fernández-Alcaraz, 1984b.
R8: Vives, 1966 (as *A.* sp. *elegans* ?).
R9: Castelló, 1986; Gili, 1986; Gili *et al.*, 1987a; Gili *et al.*, 1988.

Agalma okeni Eschscholtz, 1825 (C:g)
R4: Gili *et al.*, 1991.
R8: Vives, 1966.
R9: Gili *et al.*, 1988; Gili, 1986.

Cordagalma Totton, 1932

Cordagalma cordiformis Totton, 1932 (CT:g)
R9: Castelló, 1986; Gili, 1986; Gili *et al.*, 1987a.

Halistemma Huxley, 1859

Halistemma rubrum (Vogt, 1852) (C:g)
R8: Vives, 1966.
R9: Castelló, 1986; Gili, 1986; Gili *et al.*, 1987a; Gili *et al.*, 1988.

Nanomia A. Agassiz, 1865
Nanomia bijuga (Delle Chiaje, 1841) (C:g)
R3: Moreno and Fernández-Alcaraz, 1984b.
R8: Vives, 1966.
R9: Castelló, 1986; Gili, 1986; Gili *et al.*, 1987a; Gili *et al.*, 1988.

Nanomia cara A. Agassiz, 1865 (C:g)
R9: Gili, 1986.

Marrus Totton, 1954

– A species of the genus *Marrus* has been cited in R9 by Gili (1986), Gili *et al.*, (1987b) and Gili *et al.*, (1988) as *Marrus orthocanna* (Kramp, 1952), and is actually considered as *Marrus* sp. (Gili, pers. com.).

Family Forskaliidae Haeckel, 1888

Forskalia Kölliker, 1853

Forskalia edwardsi (Kölliker, 1853) (C:g)
R9: Gili, 1986.

Family Physophoridae Eschscholtz, 1829

Physophora Forskal, 1775

Physophora hydrostatica Forskal, 1775 (C:g)
R9: Gili, 1986; Gili *et al.*, 1987a.

Order Cystonectae Haeckel, 1888

Family Physaliidae Haeckel, 1888

Physalia Lamarck, 1801

Physalia physalis (Linnaeus, 1758) (C:g)
R1: Altuna and García-Carrascosa, 1990.
R2: Rioja, 1905; Rodríguez-Rosillo, 1914 (both as *Physalia caravella*).
R6: Medel and López-González (present account).
R9: Gili, 1986.

Order Calycophorae Leuckart, 1854

Family Abylidae L. Agassiz, 1862

Abyla Quoy and Gaimard, 1827

Abyla haeckeli Lens and Van Riemsdijk, 1908 (C:g)
R9: Gili, 1986; Gili *et al.*, 1987c.

Abylopsis Chun, 1888

Abylopsis eschscholtzi (Huxley, 1859) (C:g)
R9: Gili, 1986; Gili *et al.*, 1987a; Gili *et al.*, 1988.

Abylopsis tetragona (Otto, 1823) (C:g)
R8: Vives, 1966.
R9: Castelló, 1986; Gili, 1986; Gili and Pagès, 1987; Gili *et al.*, 1987a; Gili *et al.*, 1988.
R10: Riera and Blasco, 1967.

Bassia Agassiz, 1862

Bassia bassensis (Quoy and Gaimard, 1834) (C:g)
R8: Vives, 1966.
R9: Castelló, 1986.

Enneagonum Quoy and Gaimard, 1827

Enneagonum hyalinum Quoy and Gaimard, 1827 (C:g)
R9: Gili, 1986; Gili *et al.*, 1987a.

Family Diphyidae Eschscholtz, 1829

Chelophyes Totton, 1932

Chelophyes appendiculata (Eschschotz, 1829) (C:g)
R3: Moreno and Fernández-Alcaraz, 1984b.
R4: Gili *et al.*, 1991.
R6: Templado *et al.*, 1993.
R7: Templado *et al.*, 1993.
R8: Vives, 1966.
R9: Castelló, 1986; Gili, 1986; Gili and Pagès, 1987; Gili *et al.*, 1987c; Gili *et al.*, 1988.
R10: Riera and Blasco, 1967.

Eudoxoides Huxley, 1859

Eudoxoides spiralis (Biglow, 1911) (C:g)
R9: Gili, 1986; Gili and Pagès, 1987; Gili *et al.*, 1987c; Gili *et al.*, 1988.
R10: Riera and Blasco, 1967.

Lensia Totton, 1932

Lensia conoidea (Keferstein and Ehlers, 1860) (CT:g)
R3: Moreno and Fernández-Alcaraz, 1984b.
R4: Gili *et al.*, 1991.
R8: Vives, 1966.
R9: Leloup, 1933; Castelló, 1986; Gili, 1986; Gili and Pagès, 1987; Gili *et al.*, 1987c; Gili *et al.*, 1988.

Lensia leloupi Totton, 1954 (CT:g)
R3: Moreno and Fernández-Alcaraz, 1984b.

Lensia meteori (Leloup, 1934) (C:g)
R9: Gili, 1986; Gili *et al.*, 1987c; Gili *et al.*, 1988.

Lensia multicristata (Moser, 1925) (C:g)
R9: Gili, 1986.
R10: Bigelow and Sears, 1937.

Lensia subtilis (Chun, 1836) (C:g)
R8: Vives, 1966.
R9: Castelló, 1986; Gili, 1986; Gili and Pagès, 1987; Gili *et al.*, 1987c; Gili *et al.*, 1988.

Lensia subtiloides (Lens and Van Riemsdijk, 1908) (C:g)
R3: Moreno and Fernández-Alcaraz, 1984b.
R9: Gili, 1986; Gili *et al.*, 1987c; Gili *et al.*, 1988.

Muggiaea Busch, 1851

Muggiaea atlantica Cunningham, 1892 (C:g)
R3: Moreno and Fernández-Alcaraz, 1984b.
R4: Gili *et al.*, 1991.
R8: Vives, 1966.
R9: Castelló, 1986; Gili, 1986; Gili and Pagès, 1987; Gili *et al.*, 1987c; Gili *et al.*, 1988.

Muggiaea cantabrica Fernández-Alcazar, 1982 (X:g)
R3: Alcázar, 1982; Moreno and Fernández-Alcaraz, 1984b.
– This species is probably a synonym of *M. atlantica*.

Muggiaea kochi (Will, 1844) (C:g)
R3: Moreno and Fernández-Alcaraz, 1984b.
R4: Gili *et al.*, 1991.
R7: García-Raso *et al.*, 1992.
R8: Vives, 1966.
R9: Castelló, 1986; Gili, 1986; Gili and Pagès, 1987; Gili *et al.*, 1987c; Gili *et al.*, 1988.

Sulculeolaria Blainville, 1834

Sulculeolaria biloba (M. Sars, 1834) (C:g)
R9: Gili, 1986; Gili *et al.*, 1987a.
R10: Bigelow and Sears, 1937.

Sulculeolaria chuni (Lens and Van Riemsdijk, 1908) (C:g)
R8: Vives, 1966.
R9: Gili, 1986.
R10: Riera and Blasco, 1937.

Sulcoleolaria quadrivalvis Blainville, 1834 (C:g)
R9: Gili, 1986.
R10: Bigelow and Sears, 1937.

Family Hippopodiidae Kölliker, 1853

Hippopodius Quoy and Gaimard, 1827

Hippopodius hippopus (Forskal, 1775) (C:g)
R6: Templado *et al.*, 1993.
R9: Gili, 1986; Gili *et al.*, 1987c; Gili *et al.*, 1988.
R10: Leloup, 1933.

Vogtia Kölliker, 1853

Vogtia glabra Bigelow, 1918 (CT:g)
R9: Leloup, 1933; Gili, 1986.

Family Prayidae Kölliker, 1853

Rosacea Quoy and Gaimard, 1827

Rosacea plicata Quoy and Gaimard, 1827 (C:g)
R4: Gili *et al.*, 1991.
R9: Gili, 1986.

Family Sphaeronectidae Huxley, 1859

Sphaeronectes Huxley, 1859

Sphaeronectes bougisi Carré, 1968 (M:g)
R9: Gili, 1986; Gili *et al.*, 1987a.

Sphaeronectes gracilis (Claus, 1873) (CT:g)
R3: Moreno and Fernández-Alcaraz, 1984b.
R4: Gili *et al.*, 1991.