ADDITIONS TO THE INVENTORY
OF MOLLUSCA OPISTHOBRANCHIA OF GALICIA
(NW IBERIAN PENINSULA)


Key words: Opisthobranchia, new records, Galicia, NW Iberian Peninsula, taxonomy, distribution, habitat, Nudibranchia, Cephalaspidea, Anaspidea, Acochlidiomorpha, Sacoglossa.

ABSTRACT

A total of 36 species of Mollusca Opisthobranchia collected on Galician coasts (NW Iberian Peninsula) are presented in this article: one Cephalaspidea, one Anaspidea, two Acochlidiomorpha, two Sacoglossa and 30 Nudibranchia. Of these, 15 had not been previously quoted for Galicia; the other 21, despite being previously quoted, represent rare species or species little known on these coasts. For each species, remarks are made concerning different taxonomic aspects, their distribution and habitat characteristics.

INTRODUCTION

The littoral bottoms of the coasts of Galicia present a high diversity of habitats and species as a consequence of several physical and ecological factors; they stretch as far as 1500 km of coast line, very irregularly, with open environments exposed to the beating of the ocean and more protected ‘rias’ with varied dimensions and orography. Their waters, as a consequence of the phenomenon of coastal upwelling, present a great phytoplanktonic richness and are subsequently responsible for the high secondary production, capable of keeping a high biodiversity of species of marine animals.

In the littoral fauna of Galicia, Gasteropoda Mollusca represent an important share, and of these, testacea species are very well-known (Hidalgo, 1886; Cadée, 1968; Hernández-Otero & Jiménez-Millán, 1972; Rolán, 1983; Otero-Schmitt & Trigo,
Figure 1:
Location maps of the localities where the species quoted in this article were collected.
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1986, 1987, 1989; Trigo & Otero-Schmitt, 1987; Troncoso et al., 1988, 1990; Rolán et al., 1989; Troncoso & Urgorri, 1990, 1991; Olabarria, Urgorri & Troncoso, 1997a, 1997b; Olabarria, Troncoso & Urgorri, 1997; Carmona-Zalvide & Urgorri, 1999a, 1999b; amongst others). However, there is not such exhaustive knowledge of Gastropoda Opisthobranchia, above all, of those lacking in shell in their adult stage. Of the Opisthobranchia that still keep their shell more or less reduced, there are some mentions in Galicia from the middle of the 19th century (MacAndrew, 1849, 1850; MacAndrew & Woodward, 1864; Hidalgo, 1886, 1917; Cadée, 1968; Hernández-Otero & Jiménez-Millán, 1972; amongst others). But of the Opisthobranchia lacking in shell, it is not until the last quarter of the 20th century when the first quotes come out (Ros, 1975; Ortea, 1977a; Ortea & Urgorri, 1978; Polo et al., 1979; Ortea & Urgorri, 1979a, 1979b; Urgorri, 1981; Ortea & Urgorri, 1981a, 1981b; amongst others).

When the inventory of Opisthobranchia from Galicia was published, Urgorri & Besteiro (1983) compiled all the previous information, adding numerous quotes unpublished until then. In subsequent years, new quotes were added to the inventory by different authors (Rolán, 1983; Cobo, 1985; Urgorri & Besteiro, 1986; Rolán-Álvarez & Rolán, 1989; Rolán, Otero & Rolán-Álvarez, 1989; García, Urgorri & López-González, 1990; Rolán, Rolán-Álvarez & Ortea, 1991; Urgorri, Cobo & Besteiro, 1991; Calado & Urgorri, 2002; amongst others). Apart from these contributions, after almost 30 years since the publication of the inventory of Galicia (Urgorri & Besteiro, 1983), numerous specimens of Opisthobranchia have been collected on our coasts, presenting in this article those additions that are considered to be the most noteworthy, not only for their novelty, but also for their oddities or shortage of mentions and those that presented any confusion and needed to be clarified or specified. They make up a total of 36 species of Mollusca Opisthobranchia of Galicia: a Cephalaspidea, an Anaspidea, two Acochlidiomorpha, two Sacoglossa and 30 Nudibranchia.

On the other hand, the zoological systematic, so accustomed in the recent past to the traditional classification, is currently living a revolution in all taxonomic levels, basically stimulated by molecular sequence data. This booster has made the world of zoology go more deeply into the phylogenetic analyses based on morphological and molecular data, which has undoubtedly caused a magnificent scientific boost. Nevertheless, the extent of zoology and the great animal diversity determines that the results of the phylogenetic analyses have not evolved sufficiently in any direction yet, being still provisional in many cases, despite moving forward progressively. Therefore, different authors and articles have produced year after year results that in some cases are opposing or at least not concordant. Following one or another systematic ordering is sometimes circumstantial and the one chosen may be left behind the times in a short period of time to a greater or lesser extent. Consequently, as we agree with the arguments used by Cervera et al. (2004) for the ordering followed in his article, it has been decided to use the same systematic ordering as that used in this checklist of Opisthobranchs from Spain and Portugal.

STUDY AREA

Urgorri & Besteiro (1983) decided to include the quotes of the littoral system and the bathyal zone of our coasts in the Inventory of the Mollusca Opisthobranchia of Galicia. In this article, in which new additions to that inventory are given, the quotes included are confined to the littoral system, as the species of Opisthobranchia collected in the deep-sea (bathyal and abyssal zones), are still under study.

All quotes presented correspond to species sampled on the whole littoral of Galicia, although most localities are confined to the ‘rias’ of Ferrol, A Coruña, Arousas and Ares.

Below are listed the 81 mentioned localities, with the place name and geographical coordinates of their
location, ordered from north to south following the coast from Ribadeo to A Guarda. This list, which may seem to be redundant, as localities are also written up for each of the species, allows an overall view of the localities correlated and shown on the maps of figure 1.

1. **Benquerencia** (Lugo) - (43° 33’ 47” N; 007° 10’ 42” W)
2. **Burela** (Lugo) - (43° 38’ 50” N; 007° 20’ 35” W)
3. **Sismundi** (Ortigueira) - (43° 42’ 12” N; 007° 52’ 31” W)
4. **Capela do Porto**, (Meirás, Valdoviño) - (43° 36’ 53” N; 008° 11’ 45” W)
5. **O Pieiro Pequeno** (Ría de Ferrol) - (43° 26’ 54” N; 008° 20’ 40” W)
6. **O Pieiro Pequeno** (Ría de Ferrol) - (43° 27’ 29” N; 008° 20’ 14” W)
7. **O Zorrón** (Ría de Ferrol) - (43° 27’ 22” N; 008° 20’ 23” W)
8. **Canelas** (Ría de Ferrol) - (43° 28’ N; 008° 19’ W)
9. **Canelas** (Ría de Ferrol) - (43° 27’ 50” N; 008° 19’ 44” W)
10. **Viñas** (Ría de Ferrol) - (43° 27’ 50” N; 008° 19’ 47” W)
11. **Barbeira** (Ría de Ferrol) - (43° 28’ 08” N; 008° 19’ 07” W)
12. **Cariño** (Ría de Ferrol) - (43° 27’ 55” N; 008° 19’ 17” W)
13. **Fornelos** (Ría de Ferrol) - (43° 28’ 02” N; 008° 18’ 49” W)
14. **Fornelos** (Ría de Ferrol) - (43° 27’ 51” N; 008° 18’ 57” W)
15. **Fornelos** (Ría de Ferrol) - (43° 27’ 59” N; 008° 18’ 48” W)
16. **San Cristovo** (Ría de Ferrol) - (43° 27’ 56” N; 008° 18’ 06” W)
17. **Rabo da Porca** (Ría de Ferrol) - (43° 27’ 37” N; 008° 17’ 53” W)
18. **Rabo da Porca** (Ría de Ferrol) - (43° 27’ 27” N; 008° 18’ 15” W)
19. **Rabo da Porca** (Ría de Ferrol) - (43° 27’ 37” N; 008° 17’ 50” W)
20. **San Felipe** (Ría de Ferrol) - (43° 27’ 47” N; 008° 18’ 57” W)
21. **Castelo de San Felipe** (Ría de Ferrol) - (43° 27’ 46” N; 008° 16’ 50” W)
22. **Leuseda** (Ría de Ferrol) - (43° 27’ 54” N; 008° 16’ 30” W)
23. **Leuseda** (Ría de Ferrol) - (43° 27’ 57” N; 008° 16’ 30” W)
24. **Leuseda** (Ría de Ferrol) - (43° 28’ 03” N; 008° 16’ 38” W)
25. **Leuseda** (Ría de Ferrol) - (43° 27’ 58” N; 008° 16’ 47” W)
26. **O Pereiro** (Ría de Ferrol) - (43° 27’ 58” N; 008° 16’ 18” W)
27. **O Pereiro** (Ría de Ferrol) - (43° 28’ 01” N; 008° 16’ 15” W)
28. **O Vispón** (Ría de Ferrol) - (43° 27’ 56” N; 008° 16’ 05” W)
29. **A Graña** (Ría de Ferrol) - (43° 28’ 53” N; 008° 15’ 26” W)
30. **A Graña** (Ría de Ferrol) - (43° 28’ 44” N; 008° 15’ 33” W)
31. **A Graña** (Ría de Ferrol) - (43° 28’ 43” N; 008° 15’ 35” W)
32. **A Cabana** (Ría de Ferrol) - (43° 29’ 12” N; 008° 15’ 29” W)
33. **A Cabana** (Ría de Ferrol) - (43° 29’ 10” N; 008° 15’ 29” W)
34. **A Malata** (Ría de Ferrol) - (43° 29’ 23” N; 008° 14’ 57” W)
35. **Promontoiro - A Barca** (Ría de Ferrol) - (43° 27’ 46” N; 008° 13’ 54” W)
36. **A Bestarzua** (Ría de Ferrol) - (43° 27’ 49” N; 008° 15’ 42” W)
37. **O Baño** (Ría de Ferrol) - (43° 27’ 47” N; 008° 15’ 57” W)
38. **O Baño** (Ría de Ferrol) - (43° 27’ 39” N; 008° 15’ 59” W)
39. **A Redonda** (Ría de Ferrol) - (43° 27’ 46” N; 008° 16’ 10” W)
40. **A Redonda** (Ría de Ferrol) - (43° 27’ 51” N; 008° 16’ 06” W)
41. **A Redonda** (Ría de Ferrol) - (43° 27’ 52” N; 008° 16’ 15” W)
42. A Palma (Ría de Ferrol) - (43° 27’ 54” N; 008° 16’ 32” W)
43. Ría de Ferrol - (43° 28’ 10” N; 008° 14’ 47” W)
44. Ría de Ferrol - (43° 28’ 15” N; 008° 15’ 09” W)
45. Ría de Ferrol - (43° 28’ 20” N; 008° 15’ 02” W)
46. Ría de Ferrol - (43° 28’ 10” N; 008° 12’ 43” W)
47. Cu da Raiña (Ría de Ferrol) - (43° 27’ 27” N; 008° 17’ 35” W)
48. A Moa do Segaño (Ría de Ferrol) - (43° 27’ 25” N; 008° 18’ 42” W)
49. O Segaño (Ría de Ferrol) - (43° 27’ 03” N; 008° 19’ 12” W)
50. O Segaño (Ría de Ferrol) - (43° 27’ 07” N; 008° 18’ 54” W)
51. O Segaño (Ría de Ferrol) - (43° 27’ 05” N; 008° 18’ 56” W)
52. As Merloceiras (Ría de Ares) - (43° 26’ 24” N; 008° 19’ 20” W)
53. Perbes (Ría de Ares) - (43° 22’ 50” N; 008° 13’ 46” W)
54. San Amede (Ría de Ares) - (43° 23’ 23” N; 008° 16’ 15” W)
55. Ría de Ares (43° 22’ 57” N - 43° 25’ 18” N; 008° 13’ 29” W - 008° 17’ 32” W)
56. A Moreira (Ría de Coruña) - (43° 22’ 30” N; 008° 23’ 17” W)
57. O Grelle (Ría de Coruña) - (43° 22’ 53” N; 008° 23’ 30” W)
58. O Cabalo (Ría de Coruña) - (43° 23’ 05” N; 008° 23’ 26” W)
59. Punta Herminia (A Coruña) - (43° 23’ 25” N; 008° 24’ 02” W)
60. As Agudelas (A Coruña) - (43° 23’ 26” N; 008° 24’ 24” W)
61. O Boi (A Coruña) - (43° 23’ 19” N; 008° 24’ 54” W)
62. Orzán (A Coruña) - (43° 22’ 42” N; 008° 24’ 36” W)
63. O Basteo (A Coruña) - (43° 22’ 33” N; 008° 27’ 19” W)
64. Aguíño (Ría de Arousa) - (42° 31’ 01” N; 009° 00’ 41” W)
65. Xidoiros (Ría de Arousa) - (42° 32’ 44” N; 008° 55’ 30” W)
66. Cambados (Ría de Arousa) - (43° 31’ 17” N; 008° 49’ 18” W)
67. Ansuíña de Micaela (Ría de Arousa) - (42° 30’ 05” N; 008° 53’ 04” W)
68. Mesa do Con (Ría de Arousa) - (42° 31’ 30” N; 008° 54’ 59” W)
69. Canal do Grove (Ría de Arousa) - (42° 28’ 32” N; 008° 58’ 26” W)
70. Canal do Grove (Ría de Arousa) - (42° 27’ 50” N; 008° 58’ 14” W)
71. San Martiño do Grove (Ría de Arousa) - (42° 30’ 59” N; 008° 53’ W)
72. San Martiño do Grove (Ría de Arousa) - (42° 31’ 03” N; 008° 52’ 04” W)
73. San Martiño do Grove (Ría de Arousa) - (42° 31’ 07” N; 008° 55’ 03” W)
74. San Martiño do Grove (Ría de Arousa) - (42° 30’ 59” N; 008° 53’ 57” W)
75. Rodel das Figueiras (Ría de Arousa) - (42° 28’ 30” N; 008° 57’ 36” W)
76. San Vicente do Mar (O Grove) - (42° 27’ 10” N; 008° 55’ 25” W)
77. Ensenada da Lanzada (Ría de Pontevedra) - (42° 25’ 48” N; 008° 53’ 38” W)
78. Illa de Ons (Ría de Pontevedra) - (42° 23’ 12” N; 008° 55’ 05” W)
79. Alcabre (Ría de Vigo) - (42° 14’ 05” N; 008° 46’ 08” W)
80. Continental Shelf of Galicia - (43° 34’ 07” N; 008° 36’ 32” W - 43° 34’ 41” N; 008° 35’ 35” W)
81. Continental Shelf of Galicia - (43° 32’ 02” N; 008° 37’ 31” W - 43° 32’ 48” N; 008° 35’ 59” W)

The quoted species were collected from 24/09/1976 to 19/11/2010; three quarters of them are posterior to the publication of the inventory of Urgorri & Besteiro (1983). The remaining fourth part corresponds to species that have been mistakenly quoted or not identified with certainty.
Figure 2:


F: Corambe testudinaria Fischer, 1889. G: Okenia aspersa (Alder & Hancock, 1845).

H: Trapania tartanella (Ihering, 1885).
RESULTS

Superorder OPISTHOBRANCHIA Milne-Edwards, 1848
Order CEHALASPIDEA Mikkelsen, 1996
Family GASTROPTERIDAE Swainson, 1840

*Gastropteron rubrum* (Rafinesque, 1814)

**Material:** Continental Shelf of Galicia, 14/09/2003, (43° 34’ 07” N; 008° 36’ 32” W - 43° 34’ 41” N; 008° 35’ 35” W). 1 specimen 14 mm long (fixed), collected on bottoms of muddy sand at a depth of 149 m. Continental Shelf of Galicia, 25/09/2004, (43° 32’ 02” N; 008° 37’ 31” W - 43° 32’ 48” N; 008° 35’ 59” W). 3 specimens, the largest measuring 14 mm long when fixed, collected on bottoms of muddy sand at a depth of 151 m.

**Distribution in Galicia:** So far unknown on our coasts, it is the first quote in Galicia.

**Remarks:** Cervera et al. (1988, 2004) mistakenly mention the presence of *Gastropteron rubrum* in both checklists in area 2 (Galicia, western Asturias and northern Portugal) and attribute the quote to Ros (1975 as *G. meckeli*), who had carried out only two samplings in area 2 for this publication: an infralittoral at Vilagarcía de Arousa and an intertidal at Canido, where he did not collect this species. This author (Ros, 1975) quotes it for the Catalan littoral (area 8), collecting more than 100 specimens on trawl fishing grounds of Blanes (ba1, ba2, ba3 & ba5), at a depth from 40 to 250 m.

Order ANASPIDEA Fischer, 1883
Family APLYSIIDAE Lamarck, 1809

*Aplysia fasciata* Poiret, 1789

**Material:** Aguiño (Ría de Arousa), 16/10/2000, (42° 31’ 01” N; 009° 00’ 41” W). 1 specimen 250 mm long in tide pools of rocky intertidal.

**Distribution in Galicia:** This species was quoted in Galicia by Cobo (1985) and Arnaud et al. (1986).

**Remarks:** The quotes of *Asperpina loricata* and other mesopsammic Opisthobranchia: *Philinoglossa helgolandica*, *Hedylopsis spiculifera* and *Microhedyle glandulifera* which Arnaud et al. (1986) mention in ‘Galicia’ in an imprecise way, correspond to the dissertation by Cobo (1984), as these authors point out in the additional notes of their publication. A wide summary of the results of the study of Cobo (1984) were published in a small popular science book (Cobo, 1985), where the situation of the sampling localities, which has been included in this article, is precisely mentioned.

Order ACOCHLIDIOMORPHA Salvini-Plawen, 1983
Family HEDYLOPSIDAE Odhner, 1952

*Asperpina loricata* (Swedmark, 1968)

**Material:** Mesa do Con (Ría de Arousa), 05/05/1981, (42° 31’ 30” N; 008° 54’ 59” W). 9 specimens, the largest 1.2 mm long, collected on bottoms of sand with shelly gravel and maërl at a depth of 8.7 m. San Martiño do Grove (Ría de Arousa), 17/02/1981, (42° 30’ 59” N; 008° 53’ 57” W). 1 specimen, 1 mm long, on bottoms of sand with maërl at a depth of 8.5 m.

**Distribution in Galicia:** This species was quoted in Galicia by Cobo (1985) and Arnaud et al. (1986).

**Remarks:** The quotes of *Asperpina loricata* and other mesopsammic Opisthobranchia: *Philinoglossa helgolandica*, *Hedylopsis spiculifera* and *Microhedyle glandulifera* which Arnaud et al. (1986) mention in ‘Galicia’ in an imprecise way, correspond to the dissertation by Cobo (1984), as these authors point out in the additional notes of their publication. A wide summary of the results of the study of Cobo (1984) were published in a small popular science book (Cobo, 1985), where the situation of the sampling localities, which has been included in this article, is precisely mentioned.

Family MICROHEDYLIDAE Hertling, 1930

*Microhedyle glandulifera* (Kowalevsky, 1901)

**Material:** O Pereiro (Ría de Ferrol), 02/12/1986, (43° 27’ 58” N; 008° 16’ 18” W). 195 specimens, the largest 1.7 mm long, in Amphioxus sand at a depth of 12 m. Leuseda (Ría de Ferrol), (43° 27’ 54” N; 008° 16’ 30” W), sand of Amphioxus at a depth of
Figure 3:
F: Chromodoris lutecosa (Rapp, 1827). G: Cadlina pellucida (Risso, 1826).
H: Discodoris stellifera (Vayssière, 1904).
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13-18 m. 362 specimens: 21/03/1978, 08/04/1978, 20/10/1978, 18/11/1980. A Palma (Ría de Ferrol), 02/06/2004, (43° 27' 54” N; 008° 16' 32” W). 19 specimens 1 mm long, in Amphioxus sand at a depth of 14 m. Rabo da Porca (Ría de Ferrol), 02/06/2004, (43° 27' 37” N; 008° 17' 53” W). 8 specimens in Amphioxus sand at a depth of 13 m.

San Martiño do Grove (Ría de Ferrol), 24/09/1983, (42° 28’ 00” N; 008° 20’ 40” W). 10 specimens in Amphioxus sand at a depth of 25 m. Perbes (Ría de Ares), 02/04/1980, (43° 22’ 50” N; 008° 13’ 46” W). 8 specimens in sand at a depth of 9-10 m. Xidoiros (Ría de Arousa), 28/01/1980, (42° 32’ 44” N; 008° 55’ 30” W). 1 specimen in Amphioxus sand at a depth of 12 m.

San Martiño do Grove (Ría de Arousa), 03/05/1981, (42° 31’ 03” N; 008° 52’ 04” W). 73 specimens in Amphioxus sand at a depth of 8 m. San Martiño do Grove (Ría de Arousa), 23/02/1981, (42° 28’ 32” N; 008° 58’ 26” W). 2 specimens in sand at a depth of 60 m. Rodel das Figueiras (Ría de Arousa), 03/08/1982, (42° 25’ 48” N; 008° 53’ 38” W). 24 specimens in Amphioxus sand at a depth of 10-20 m. Illa de Ons (Ría de Pontevedra), 09/04/1980, (42° 23’ 12” N; 008° 55’ 05” W). 14 specimens in Amphioxus sand at a depth of 35 m. Alcabre (Ría de Vigo), 23/02/1981, (42° 14’ 05” N; 008° 46’ 08” W). 2 specimens in sand at a depth of 28 m.

The size of all specimens quoted in the material ranged from 0.5 to 3.5 mm long.

Distribution in Galicia: This species was quoted in Galicia by Urgorri & Besteiro (1983, as Unela odhneri), Cobo (1985) and Arnau et al. (1986).

Remarks: As previously commented on Asperpina loricata (vide supra), the quotes of Microhedyle glandulifera that Arnau et al. (1986) mention in an imprecise way in ‘Galicia’, correspond to the dissertation by Cobo (1984), as these authors point out in the additional notes of their publication. Previously, it had been mistakenly quoted by Urgorri & Besteiro (1983) as Unela odhneri; the quotes of Cobo (1985) and posterior recollections of the species are included herein.

It is also important to emphasize that the follow-up of the fauna of Amphioxus sand at Ría de Ferrol for many years, revealed that the populations of Microhedyle glandulifera and other mesopsammic Opisthobranchia have drastically decreased as a consequence of the exponential increase of pollution and the decrease of hydrodynamics due to the closing of the ‘ría’ that the construction of the outer port breakwater caused. This fact can be proved by comparing the number of specimens and the dates in the first four related localities. Unfortunately, the value of mesopsammic Opisthobranchia is confirmed once again as ecological indicators, a fact that had already been stated by Poizat (1983), 25 years ago, for the Gulf of Marseilles: “From the progressive alteration of the ecological conditions (lowering of marine hydrodynamism together with the rise of the pollution impact) between 1969 and 1977, in infralittoral and circalittoral zones of the gulf of Marseilles, originated significant modifications of the mesopsammic Opisthobranch population: mainly generalised change in the frequency of the species”. 
Order SACOGLOSSA Von Ihering, 1876
Suborder PLAKOBRANCHACEA Rang, 1829
Family HERMAEIDAE Adams & Adams, 1854

**Hermaea bifida** (Montagu, 1815)

**Material:** Leuseda (Ría de Ferrol), 22/08/1996, (43° 27’ 58” N; 008° 16’ 47” W). 1 specimen 5 mm long, collected on a red algae at a depth of 5 m.

**Distribution in Galicia:** The only quote known for this species in Galicia is that from Vigo (Rolán, 1983).

**Remarks:** Another 7 specimens of *Hermaea* sp. are present, collected in the years 1977, 1978 and 1979 in other localities of Ría de Ferrol, which presumably belong to this species, but whose correct identification is still to be confirmed.

**Hermaeopsis variopicta** (Costa, 1869)

**Material:** O Pieiro Pequeno (Ría de Ferrol), 05/05/2007, (43° 27’ 29” N; 008° 20’ 14” W). 1 specimen 7 mm long, on red algae on rocky bottoms at a depth of 10 m.

**Distribution in Galicia:** Only known from Benquerencia (Lugo), (Ortea, 1977a, 1977b; Urgorri & Besteiro, 1983) and from Ría de Vigo (Rolán-Álvarez & Rolán, 1989).

**Remarks:** All quotes of this species on our coasts (Ortea, 1977a, 1977b; Urgorri & Besteiro, 1983) correspond to an only specimen collected by Ortea in Benquerencia (Lugo) and to the quote by Rolán-Álvarez & Rolán (1989), in which neither the number of specimens nor the locality at Ría de Vigo are specified.

Order NUDIBRANCHIA Blainville, 1814
Suborder ANTHOBRANCHIA Minichev, 1970
Infraorder DORIDINA Pelseneer, 1894
Family CORAMBIDAE Bergh, 1871

**Corambe testudinaria** Fischer, 1889

**Material:** Sismundi (Ortigueira), 20/08/1984, (43° 42’ 12” N; 007° 52’ 31” W). 1 specimen collected on the infralittoral of the interior area of Ría de Ortigueira.

**Distribution in Galicia:** This species had been previously quoted on our coasts by Urgorri (1981, as *Corambe* sp.) and Garcia, Urgorri & López-González (1990), being the specimens from Galicia the same in both publications.

**Remarks:** The present quote of *C. testudinaria* represents the fourth Iberian locality where it was found and extends its distribution in the Iberian Peninsula to the north.

Family GONIODORIDIDAE Adams & Adams, 1854

**Okenia aspersa** (Alder & Hancock, 1845)

**Material:** Canelas (Ría de Ferrol), 24/06/1987, (43° 27’ 50” N; 008° 19’ 44” W). 1 specimen 10 mm long collected on infralittoral bottoms of *Amphioxus* sand at a depth of 14 m.

**Distribution in Galicia:** So far unknown on our coasts, it is the first quote in Galicia.

**Remarks:** The species of the genus *Okenia* are not very frequent in the Iberian Peninsula. No other species of the genus had been recorded before from the NW peninsular coasts, except for *O. mediterranea* which was quoted in Vigo by Valdés & Ortea (1995). *Okenia aspersa*, known from some localities of the British Islands and adjacent coasts of Western Europe, is one of the least quoted in the Iberian Peninsula, only known for being mentioned by Cervera et al. (1991) in Sagres (Portugal).

**Trapania tartanella** (Ihering, 1885)

**Material:** Viñas  (Ría de Ferrol), 01/08/1996 (43° 27’ 50” N; 008° 19’ 47” W). 34 specimens, but only 4 collected, the largest 14 mm long; they were sampled on the sponge *Demicidon fructicosum* on rocky bottoms at a depth of 14 m. Fornelos (Ría de Ferrol), (43° 28’ 02” N; 008° 18’ 49” W), from 19 to 20.5 m deep on rocky bottoms on the sponge *Demicidon fructicosum:* 16/05/1991, 14
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specimens, but only 2 collected, the largest 10 mm long; 02/08/1992, 22 specimens, the largest 13 mm long; 05/08/1996, 17 specimens, but only 3 collected, the largest 12 mm long; 17/08/1996, 1 specimen 9.5 mm long. Cu da Raiña (Ría de Ferrol), 23/08/1992, (43° 27’ 27” N; 008° 17’ 35” W). 3 specimens, the largest 19 mm long, collected on a rock on the sponge Desmacidon fructicosum on shelly gravel bottoms at a depth of 17 m. A Redonda (Ría de Ferrol), 01/08/1992, (43° 27’ 51” N; 008° 16’ 06” W). 3 specimens, the largest 21 mm long, collected on a rock on the sponge Desmacidon fructicosum at a depth of 14 m. O Boi (A Coruña), 19/09/2002, (43° 23’ 19” N; 008° 24’ 54” W). 12 specimens, the largest 15 mm long, grouped on sponges on a rocky wall of a sand channel.

Distribution in Galicia: Quoted by Urgorri & Besteiro (1983), by pers. comm. of Dr. B. Picton, in several localities of the ‘rias’ of Arousa, Pontevedra and Vigo.

Remarks: Trapania tartanella is a locally abundant species in Galicia, provided it is located in the specific habitat it lives in, on the sponge Desmacidon fructicosum; this sponge is to be found at Ría de Ferrol on infralittoral rocky areas, preferably below the laminarian forest and as far as the confluence of the rocky area with the sediment, approximately from 17 to 25 m deep.

Trapania pallida Kress, 1968

Material: O Basteo (A Coruña), 11/07/2004, (43° 22’ 33” N; 008° 27’ 19” W). 1 specimen 14 mm long, on red algae on rocky bottoms at a depth of 18 m.


Remarks: The quote on bottoms of A Coruña extends its distribution area in Galicia to the north.

Family POLYCHERIDAE Alder & Hancock, 1845

Thecacera pennigera (Montagu, 1815)

Material: Benquerencia (Lugo), 26/06/1983, (43° 33’ 47” N; 007° 10’ 42” W). 1 specimen collected on an intertidal rocky area. Sismundi (Ortigueira), 20/08/1984, (43° 42’ 12” N; 007° 52’ 31” W). 1 specimen, collected on the infralittoral of the interior area of Ría de Ortigueira. Viñas (Ría de Ferrol), 01/08/1996, (43° 27’ 50” N; 008° 19’ 47” W). 1 specimen 20 mm long, collected on red algae at a depth of 14 m on rocky bottoms.

Distribution in Galicia: So far unknown on our coasts, it is the first quote in Galicia.

Remarks: This nudibranch, which so far had not been mentioned in Galicia, is one of the rarest of our coasts, as only three specimens have been collected in three different localities and with different ecological conditions after 36 years of research.

Crimora papillata Alder & Hancock, 1862

Material: Rabo da Porca (Ría de Ferrol), 06/03/1983, (43° 27’ 37” N; 008° 17’ 50” W). 1 specimen collected from a vertical granitic wall at a depth of 17 m. O Segao (Ría de Ferrol), 08/06/2005 (43° 27’ 07” N; 008° 18’ 54” W). 1 specimen 13 mm long collected at a depth of 7 m on bottoms of small stones with great slope and strong current. O Basteo (A Coruña), 11/07/2004, (43° 22’ 33” N; 008° 27’ 19” W). 2 specimens, the largest 13 mm long on the briozoa Pentapora fascialis foliacea on rocky
Figure 4:
H: Armina tigrina Rafinesque, 1814.
bottoms at a depth of 18 m.

**Distribution in Galicia:** Polo et al. (1979) quoted it from the northern coast in Burela (Lugo), Urgorri & Besteiro (1983) from the southwestern coast at Ría de Arousa (Pombeiriño) and Rolán-Álvarez & Rolán (1989) from Illas Cíes.

**Remarks:** *Crimora papillata* is not a frequent nudibranch on our coasts. Despite being previously mentioned, the specimens from Ría de Ferrol extend to the northwest coast of Galicia.

### Family CHROMODORIDIDAE Bergh, 1891

#### Hypselodoris cantabrica

**Bouchet & Ortea, 1980**

**Material:** *Capela do Porto*, (Meirás, Valdoviño), 30/05/1999, (43° 36’ 53” N; 008° 11’ 45” W). 12 specimens collected, but more than a hundred observed on the bottom, the largest measuring 75 mm long. In general, they were all the same size, collected at a depth of 10 m on rocky bottoms at a beaten coast with *Laminaria* and *Cystoseira*. **A Moa do Segaño** (Ría de Ferrol), (43° 27’ 25” N; 008° 18’ 42” W), rocky bottoms with *Laminaria* sp. and *Leptogorgia lusitanica* at a depth of 12 m: 20/10/1985, 2 specimens, the largest 45 mm long; 27/10/1985, 3 specimens, the largest 52 mm long. **O Segaño** (Ría de Ferrol), (43° 27’ 03” N; 008° 19’ 12” W), on rocky bottoms with *Laminaria* sp. from 17 to 20 m deep: 17/08/1988, 7 specimens, the largest 49 mm long; 31/07/1992, 1 specimen 54 mm long; 26/08/1997, 5 specimens, the largest 46 mm long; 22/05/2002, 8 specimens, the largest 55 mm long. **Fornelos** (Ría de Ferrol), (43° 28’ 02” N; 008° 18’ 49” W), on rocky bottoms at a depth of 20 m: 24/11/2000, 1 specimen 37 mm long; 12/05/2002, 1 specimen 41 mm long. **Rabo da Porca** (Ría de Ferrol), 21/07/2003, (43° 27’ 37” N; 008° 17’ 50” W); 7 specimens, the largest 43 mm long, collected at a depth of 13 m on bottoms of small stones with great slope and strong current. **A Moreira** (Ría da Coruña), 10/11/2002, (43° 22’ 30” N; 008° 23’ 17” W). 1 specimen 42 mm long on rocky bottoms with small algae, with incrusting sponges and polyclinid Ascidiacea, at a depth of 10 m. **O Grelle** (Ría da Coruña), 18/06/2003, (43° 22’ 53” N; 008° 23’ 30” W). 2 specimens, the largest 66 mm long, on rocky bottoms with small red algae and incrusting sponges at a depth of 12 m. **As Agudelas** (A Coruña), (43° 23’ 26” N; 008° 24’ 24” W), on rocky bottoms with small red and calcareous algae, at a depth of 18 m: 06/04/2003, 1 specimen, 91 mm long; 21/11/2004, 2 specimens, the largest 57 mm long.

**Distribution in Galicia:** So far unknown on our coasts, with the exception of the quote by Rolán-Álvarez & Rolán (1989) at Illas Cíes.

**Remarks:** The species of the genus *Hypselodoris* are not frequent on the coasts of Galicia, with the exception of *H. cantabrica* and *H. villafranca*, which are particularly abundant, despite the statement by Bouchet & Ortea (1980), who point out in the original description of the species that this is absent in Galicia (‘absente sur les côtes de Galice’); the quote of *H. picta* in Burela (Lugo) by Polo et al. (1979, as *Glossodoris valenciennesi*) may present doubts about their identification. In spite of the abundance of *H. cantabrica* on our littoral, there is this only quote by Rolán-Álvarez & Rolán (1989) about their presence on our coasts, despite being frequently mentioned in popular science articles or reports (e.g. Informe Oceana, 2009: Cetáceos del área galaico-cantábrica. Zonas de importancia para su conservación).

#### Chromodoris luteorosea

**Rapp, 1827**

**Material:** **O Zorrón** (Ría de Ferrol), 19/02/2004, (43° 27’ 22” N; 008° 20’ 23” W). 1 specimen 17 mm long, on rocky bottoms at a depth of 36 m. **As Merloeiras** (Ría de Ares), 27/07/1993, (43° 26’ 24” N; 008° 19’ 20” W). 1 specimen 12 mm long, collected at a depth of 30 m on rock. **O Grelle** (Ría da Coruña), 12/02/2004, (43° 22’ 53” N; 008° 23’ 30” W). 2 specimens, the largest 19 mm long, on the rocky channels that go down onto sandy bottoms at a depth of 15 m.

**Distribution in Galicia:** So far unknown on our coasts, it is the first quote in Galicia.

**Remarks:** *C. luteorosea* is the most scarce species of the genus in Galicia, being *C. krohni* and above all *C. purpurea* more abundant.
**Cadlina pellucida** (Risso, 1826)

**Material:** O Segaño (Ría de Ferrol), 08/09/1985, (43° 27’ 05” N; 008° 18’ 56” W). 1 specimen 12 mm long, collected from a vertical rocky wall with Laminaria sp. at a depth of 17 m. Fornelos (Ría de Ferrol), 23/05/2002, (43° 28’ 02” N; 008° 18’ 49” W). 2 specimens, being the largest 10 mm long on rocky bottoms at a depth of 19 m.

**Distribution in Galicia:** So far unknown on our coasts, with the exception of the quote by Rolán-Álvarez & Rolán (1989) at Illas Cíes.

**Remarks:** This species is by far less frequent than *Cadlina laevis*, of the same genus, despite occupying the same habitat, mainly on the infralittoral rocks under the laminarian forest.

Family DISCODORIDIDAE Bergh, 1891

**Discodoris stellifera** (Vayssière, 1904)

**Material:** A Malata (Ría de Ferrol), 14/11/1997, (43° 29’ 23” N; 008° 14’ 57” W). 3 specimens, the largest 38 mm long, collected on *Hymeniacidon sanguinea* under *Fucus spiralis* on the sides of large stones in muddy intertidal. A Cabana (Ría de Ferrol), (43° 29’ 12” N; 008° 15’ 29” W), among the stones of a quay in the inferior level of the intertidal: 24/09/1976, 1 specimen 47 mm long, on a stone of the quay; 15/08/1980, 1 specimen 61 mm long, on *Hymeniacidon sanguinea* among clusters of *Mytilus galloprovincialis*. A Graña (Ría de Ferrol), 15/02/2008, (43° 28’ 53” N; 008° 15’ 26” W). 11 specimens, the largest 42 mm long, on bottoms of sandy mud with numerous stones covered with small algae and fauna, at a depth of 5-7 m. Promontorio - A Barca (Ría de Ferrol), 14/01/1979, (43° 27’ 46” N; 008° 13’ 54” W). 7 specimens, the largest 48 mm long, on the wall of a dolphin, at a depth of 7 m, mainly covered with Ascidiaeae (*Phallusia mammillata*).

**Distribution in Galicia:** Quoted by Urgorri & Besteiro (1983; 1984, as *Discodoris planata*), quotes that correspond to those of A Cabana on the 24/09/1976 and that of Promontorio - A Barca on the 14/01/1979, listed in the Material of the previous paragraph.

**Remarks:** In the specimens of 15/08/1980 and 24/09/1976, it was found that all spicules present in their faecal pellets belonged to the sponge *Hymeniacidon sanguinea*; the 3 specimens of 14/11/1997 were located on the same sponge. Besides, by what has been observed in the localities of Ría de Ferrol, this species had always been collected on stones and quays in protected environments, with certain pellitic sedimentation, in areas covered with fucaceous algae or masses of *Mytilus galloprovincialis*.

**Discodoris rosi** Ortea, 1979

**Material:** Fornelos (Ría de Ferrol), (43° 27’ 59” N; 008° 18’ 48” W): 06/07/1986, 2 specimens, the largest 52 mm long, on rocky bottoms with red sponges at a depth of 20 m; 23/08/1997, 1 specimen 25 mm long on rocky bottoms at a depth of 17 m; 23/05/2002, 2 specimens, the largest 29 mm long on rocky bottoms at a depth of 19 m. O Vispón (Ría de Ferrol), (43° 27’ 56” N; 008° 16’ 05” W), on thick shelly gravel bottoms, at a depth of 20 and 21 m: 16/11/2005, 2 specimens, the largest 29 mm long; 03/12/2009, 1 specimen 10 mm long. A Bestarruza (Ría de Ferrol), 11/05/2008, (43° 27’ 49” N; 008° 15’ 42” W). 2 specimens, the largest 26 mm long, collected at a depth of 18 m on bottoms of stones covered with very diverse fauna. Punta Herminia (A Coruña), 27/03/2003, (43° 23’ 25” N; 008° 24’ 02” W). 7 specimens together on red sponges, the largest 34 mm long, on a rock at a depth of 15 m. As Agudelas (A Coruña), 06/04/2003, (43° 23’ 26” N; 008° 24’ 24” W). 21 specimens, but only 6 collected, the largest 38 mm long, on rocky bottoms with small red and calcareous algae, at a depth of 18 m. Orzán (A Coruña), 25/04/1982, (43° 22’ 42” N; 008° 24’ 36” W). 3 specimens collected on the sponge *Microciona ascendens* on an intertidal rocky area.

**Distribution in Galicia:** This species was quoted for the first time at Illa de Ons (Ortea & Urgorri, 1979a), this mention was subsequently extended to Illas Cíes (Urgorri & Besteiro, 1983, pers. comm. B.
Picton; Rolán-Álvarez & Rolán, 1989). Rolán (1983) records this mentioning by Picton.

**Remarks:** *D. rosi* is a very frequent species at the ‘rias’ of Golfo Ártabro, mainly on the lowest infralittoral rocky areas, from the end of the laminarian forest downwards; many more specimens have been observed than those listed herein, they are very frequently observed making up groups of 5 to 8 individuals.

**Geitodoris planata** (Alder & Hancock, 1846)

**Material:** A Graña (Ría de Ferrol), 19/11/2010, (43° 28’ 43” N; 008° 15’ 35” W). 3 specimens, the largest 26 mm long, in the sea water tank of the Station of Marine Biology of A Graña. A Redonda (Ría de Ferrol), (43° 27’ 46” N; 008° 16’ 10” W), first infralittoral levels (0-1 m deep) under stones covered with sponges: 02/11/1978, 1 specimen 27 mm; 31/12/1978, 1 specimen 25 mm long. O Baño (Ría de Ferrol), 22/08/1986, (43° 27’ 39” N; 008° 15’ 59” W). 1 specimen 28 mm long, collected on a stone covered with algae, at a depth of 9 m. Ría de Ferrol, 14/11/1997, (43° 28’ 15” N; 008° 15’ 09” W). 1 specimen 12 mm long, dredged on shelly gravel bottoms at a depth of 8 m in the central area of the ‘ría’.

**Distribution in Galicia:** Quoted by Urgorri & Besteiro (1983; 1984), quotes that correspond to those of A Redonda on the 02/11/1978 and 31/12/1978, listed in the Material of the previous paragraph.

**Remarks:** The specimens mentioned above match up with the descriptions made by Cervera et al. (1985), Ortega (1990) and Valdés (2002), with the end of the gills and rhinophores in white, their backs covered with small tubercles and a dorso-lateral arrangement of the darker spots; however, some specimens are darker than others depending on the size of their dark brown spots, which are larger in the specimens with large size. *Geitodoris planata* was always collected in less protected environments with higher hydrodynamics than those inhabited by *Discodoris stellifera* (*vide supra*); they are bottoms of small stones covered with small algae, whose inferior surface is colonized by incrusting animals, mainly Porifera, Brioza and Asciacea.

Family DENDRODORIDIDAE O’Donoghue, 1924

**Dendrodoris herya** Valdés & Ortea, 1996

**Material:** Leuseda (Ría de Ferrol), 07/04/1983, (43° 27’ 57” N; 008° 16’ 30” W). 1 specimen 12 mm long, on a valve on shelly gravel bottoms at a depth of 15 m.

**Distribution in Galicia:** The only mention of this species on our coasts corresponds to the quote of Illas Cies (Rolán-Álvarez & Rolán, 1989; Rolán, Otero & Rolán-Álvarez (1989, as *D. grandiflora*).

**Remarks:** This is a little frequent species on the northern Iberian littoral; the present mention extends the distribution area of Galicia to the north.

Suborder CLADOBRANCHIA Willan & Morton, 1984

Infraorder DENDRONOTINA Sars, 1878

Family TRITONIIDAE Lamarck, 1809

**Tritonia plebeia** Johnston, 1828

**Material:** A Redonda (Ría de Ferrol), 20/08/1986, (43° 27’ 52” N; 008° 16’ 15” W). 8 specimens, the largest 12 mm long, collected at a depth of 20 m on the basal part of a colony of *Alcyonium digitatum* located on a rocky wall.

**Distribution in Galicia:** It has been quoted from several localities of Rías Baixas by Urgorri & Besteiro (1983) and in an imprecise way by Rolán (1983) in Vigo.

**Remarks:** The present mention corresponds to the northernmost Iberian quote, extending its distribution area in Galicia to the north and being also one of the few quotes from the Iberian Peninsula.

Family DOTOIDAE Gray, 1853

**Doto floridicola** Simroth, 1888

**Material:** Viñas (Ría de Ferrol), 01/01/1996, (43° 27’ 50” N; 008° 19’ 47” W). 2 specimens 6 mm long,
Figure 5:
collected at a depth of 14 m on rocky bottoms on the hydrozoa *Aglaophenia kirchenpaueri*. Fornelos (Ría de Ferrol), (43° 28' 02” N; 008° 18’ 49” W): 05/08/1996, 6 specimens, the largest 5.5 mm long, collected at a depth of 20.5 m on rocky bottoms on *A. kirchenpaueri*; 28/08/1996, 2 specimens 6.5 and 7 mm long, collected on *A. kirchenpaueri* on rocky bottoms at a depth of 19 m.

**Distribution in Galicia:** So far unknown on our coasts, it is the first quote in Galicia.

**Remarks:** This species is quite rare in Galicia, being the northernmost Iberian quote; it is much more abundant on the coast of Arrabida (Portugal), from where we have several specimens.

*Doto tuberculata* Lemche, 1976

**Material:** A Redonda (Ría de Ferrol), 03/03/1992, (43° 27’ 52” N; 008° 16’ 15” W). 1 specimen 13 mm long at a depth of 9 m on rocky bottoms on *Sertularella gayi*. Fornelos (Ría de Ferrol), (43° 28’ 02” N; 008° 18’ 49” W), on rocky bottoms on the hydrozoa *Sertularella gayi* from 16 to 20 m deep: 20/07/2005, 6 specimens from 4 to 6.5 mm long; 22/07/2005, 12 specimens from 4.5 to 6.2 mm long; 19/08/2005, 2 specimens 8.5 mm long; 04/01/2006, 1 specimen 7 mm long; 10/01/2006, 1 specimen 6.5 mm long. Barbeira (Ría de Ferrol), 11/04/2006, (43° 28’ 08” N; 008° 19’ 07” W). 4 specimens, the largest 6.5 mm long, collected on *Sertularella gayi* at a depth of 15 m on muddy bottoms with some loose stones with several species of hydrozoa. Castelo de San Felipe (Ría de Ferrol), 29/08/2006, (43° 27’ 46” N; 008° 16’ 50” W). 4 specimens, the largest 6 mm long, collected on *Sertularella gayi* on rocky bottoms at a depth of 14 m.

**Distribution in Galicia:** The only quote of this species known so far is that of a specimen from Reinante (Lugo).

**Remarks:** The presence of this species is bound to that of the Pennatulacea *Veretillum cynomorium* on which it feeds.

*Armina maculata* Rafinesque, 1814

**Material:** Canal do Grove (Ría de Arousa), 14/11/1990, (42° 27’ 50” N; 008° 58’ 14” W). 11 specimens, the largest 171 mm long, collected at a depth of 60 m on maërl bottoms with *Veretillum cynomorium* and *Pteroides griseum*.

**Distribution in Galicia:** So far unknown on our coasts, it is the first quote in Galicia.

**Remarks:** These species are found on *Veretillum cynomorium* and *Pteroides griseum*.

*Armina tigrina* Rafinesque, 1814

**Material:** Canal do Grove (Ría de Arousa), 14/11/1990, (42° 27’ 50” N; 008° 58’ 14” W). 7 specimens from 34 to 54 mm long, collected at a depth of 60 m on a bottom of maërl with *Veretillum cynomorium* and *Pteroides griseum*.

**Distribution in Galicia:** So far unknown on our coasts, it is the first quote in Galicia.

**Remarks:** As *A. maculata*, the presence of this species is bound to that of *Pennatulacea*; however, it could not be proved if it fed on the mentioned Alcyonaria, but presumably it does.

Infraorder ARMININA Odhner, 1934

Family ARMINIDAE Iredale & O'Donoghue, 1923

*Armina maculata* Rafinesque, 1814

**Material:** Canal do Grove (Ría de Arousa), 14/11/1990, (42° 27’ 50” N; 008° 58’ 14” W). 11 specimens, the largest 171 mm long, collected at a depth of 60 m on maërl bottoms with *Veretillum cynomorium* and *Pteroides griseum*.

**Distribution in Galicia:** So far unknown on our coasts, it is the first quote in Galicia.

**Remarks:** This species is not rare in Galicia, but lives in a very specific habitat. The numerous specimens collected so far were on the hydrozoa *Sertularella gayi* located on the lower parts of rocks and stones in areas with a certain pellicic sedimentation.

Infraorder ARMININA Odhner, 1934

Family ARMINIDAE Iredale & O'Donoghue, 1923

*Armina maculata* Rafinesque, 1814

**Material:** Canal do Grove (Ría de Arousa), 14/11/1990, (42° 27’ 50” N; 008° 58’ 14” W). 11 specimens, the largest 171 mm long, collected at a depth of 60 m on maërl bottoms with *Veretillum cynomorium* and *Pteroides griseum*.

**Distribution in Galicia:** So far unknown on our coasts, it is the first quote in Galicia.

**Remarks:** These species are found on *Veretillum cynomorium* and *Pteroides griseum*.

*Armina tigrina* Rafinesque, 1814

**Material:** Canal do Grove (Ría de Arousa), 14/11/1990, (42° 27’ 50” N; 008° 58’ 14” W). 7 specimens from 34 to 54 mm long, collected at a depth of 60 m on a bottom of maërl with *Veretillum cynomorium* and *Pteroides griseum*.

**Distribution in Galicia:** So far unknown on our coasts, it is the first quote in Galicia.

**Remarks:** As *A. maculata*, the presence of this species is bound to that of *Pennatulacea*; however, it could not be proved if it fed on the mentioned Alcyonaria, but presumably it does.

Infraorder AEOLIDINA Odhner, 1934

Family FLABELLINIDAE Bergh, 1889

*Flabellina affinis* (Gmelin, 1791)

**Material:** Fornelos (Ría de Ferrol), 22/11/1998, (43° 28’ 02” N; 008° 18’ 49” W). 3 specimens, the largest 18 mm long, collected at a depth of 17 m on rocky bottoms.
Distribution in Galicia: So far unknown on our coasts, it is the first quote in Galicia.

Remarks: This nudibranch is rare in Galicia and unknown in the NW and N of the Iberian Peninsula (Cervera et al., 2004), being these specimens the northernmost Iberian quote.

Family FACELINIDAE Bergh, 1889

Favorinus blianus Lemche & Thompson, 1974
Material: Fornelos (Ría de Ferrol), 09/08/1992, (43° 28' 02'' N; 008° 18' 49'' W). 11 specimens, the largest 16 mm long, collected at a depth of 20 m on rocky bottoms on red algae, where numerous clutches of Aeolidacea were present.

Distribution in Galicia: It was mentioned for the first time by Ortea & Urgorri (1981b) from Pedras Negras (Pontevedra); Urgorri & Besteiro (1983) record this same specimen in their inventory, another one from Illa de Ons and a third one from Pombeiriño (Ría de Arousa).

Remarks: The specimens from Fornelos extend their distribution in Galicia to the north as far as Golfo Ártabro. This quote corresponds to the northernmost mention of the species in the Iberian Peninsula. Outside our coasts, it is only known from the coast of Arrabida (Gavaia et al., 2003).

Pruvotfolia pselliotes (Labbé, 1923)

Material: Ría de Ferrol, 23/06/1993, (43° 28' 20'' N; 008° 15' 02'' W). 1 specimen 20 mm long on the concavity of a valve from shelly gravel bottoms at a depth of 12 m.

Distribution in Galicia: The only mention of this species on our coasts corresponds to 3 specimens from the entrance of Ría de Vigo: Illas Cíes and Cabo de Home (Rolán, Rolán-Álvarez & Ortea, 1991).

Remarks: This species of unquestionable Atlantic distribution in the Iberian Peninsula, is quite rare in Galicia. Every time it was observed, its individuals were isolated and could not be related to a specific habitat or prey species.

Family AEOLIDIIDAE D’Orbigny, 1834

Aeolidiella glauca (Alder and Hancock, 1845)

Material: San Cristovo (Ría de Ferrol), 15.09.1977 (43° 27’ 56’’ N; 008° 18’ 06’’ W). 1 specimen of 15 mm at a depth of 4.5 m under a stone in the area of the laminarian forest.

Distribution in Galicia: So far unknown on our coasts, it is the first quote in Galicia.

Remarks: Of the species of the genus Aeolidiella present on our coasts, A. glauca is by far less frequent than A. sanguinea and A. alderi.

Cerberilla bernadettæ Tardy, 1965

Material: Ría de Ferrol, 08/08/1987, (43° 28’
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10° N; 008° 14’ 47” W). 2 specimens 5 mm long on muddy shelly gravel at a depth of 15 m. Ría de Ferrol, 25/08/1987 (43° 28’ 10” N; 008° 12’ 43” W). 1 specimen 11 mm long on mud at a depth of 8 m. Ría de Ares, from 01/11/1987 to 31/07/1996 (43° 25’ 18” N; 008° 13’ 29” W - 008° 17’ 32” W), at a depth from 10 to 26 m on bottoms of muddy sand, mud and silty sand. 29 specimens, the largest 8.5 mm long, all fixed together with the sediment.

Distribution in Galicia: So far unknown on our coasts, it is the first quote in Galicia.

Remarks: This species presents, on our coasts, a shallow digging habit on the infralittoral bottoms of muddy sand and sandy mud, with moderate values of organic matter, in which the anemone Edwardsia sp. is often present. Dr. Cervera was informed of the presence of this species at the ‘rías’ of Golfo Ártabro, who included the quote in Cervera et al., (2004) as a pers. comm.

Family EUBRANCHIDAE Odhner, 1934

Eubranchus linensis García-Gómez, Cervera & Garcia, 1990

Material: O Pereiro (Ría de Ferrol), 20/02/1987, (43° 28’ 01” N; 008° 16’ 15” W). 2 specimens 10 mm long on the Hydrozoa Halecium sp. on rocky bottoms at a depth of 9 m. San Felipe (Ría de Ferrol), 22/08/2007, (43° 27’ 47” N; 008° 18’ 57” W). 1 specimen 10 mm long, on rocky bottoms at a depth of 18 m. Punta Herminia (A Coruña), 27/03/2003, (43° 23’ 25” N; 008° 24’ 02” W). 2 specimens together on the hydraria Halecium sp., the largest 11 mm long, on a rock at a depth of 15 m.

Distribution in Galicia: So far unknown on our coasts, it is the first quote for Galicia.

Remarks: These specimens match up with the chromatic model of the original description (García-Gómez, Cervera & Garcia, 1990), identification that was subsequently corroborated by Dr. Cervera, who included the quote in Cervera et al., (2004) as a pers. comm. It also corresponds to the northernmost mention of the species.

Pseudovermis papillifer Kowalevsky, 1901

Material: O Baño (Ría de Ferrol), 18/11/2007, (43° 27’ 47” N; 008° 15’ 57” W). 1 specimen 3.5 mm long on a slightly muddy shelly gravel bottom at a depth of 18 m.

Distribution in Galicia: So far unknown on our coasts, it is the first quote in Galicia.


Family CALMIDAE Iredale & O’Donoghue, 1923

Calma glaucoides (Alder & Hancock, 1854)

Material: Burela (Lugo), 18/05/1999, (43° 38’ 50” N; 007° 20’ 35” W). 8 specimens, one on a spawn of Lepadogaster lepadogaster and 7 on another spawn of Lepadogaster candollei. Ría de Ferrol, 03/06/2004, (43° 28’ 15” N; 008° 15’ 09” W). 2 specimens 6 mm long, dredged on gravel bottoms at a depth of 8 m in the central area of the ‘ría’.

Distribution in Galicia: Only quoted by Calado & Urgorri (2002).

Remarks: Calma glaucoides was mistakenly quoted by Urgorri & Besteiro (1983, 1984); Calado & Urgorri (2002) subsequently proved that such specimens belonged to a new species: Calma gobioophaga, being these the only quotes (Burela and Ría de Ferrol) known at present.

Calma gobioophaga Calado & Urgorri, 2002

Material: A Cabana (Ría de Ferrol), 05/08/1978, (43° 29’ 10” N; 008° 15’ 29” W). 1 specimen (Paratype 2) 4 mm long at a depth of 2 m on unidentified fish spawn; depository at the Museo de Historia Natural ‘Luis Iglesias’ (MCNS), Santiago de Compostela, Spain, with the registration number MCNS-5MO.
Cambados (Ría de Arousa), 27/07/1979, (43° 31’ 17” N; 008° 49’ 18” W). 58 specimens (type series of Galicia), the largest 10 mm long, collected at a depth of 3 m under the stones of a breakwater covered with spawns of *Gobius niger*. Leuseda (Ría de Ferrol), 19/08/1979, (43° 28’ 03” N; 008° 16’ 38” W). 2 specimens (type series of Galicia), the largest 6.5 mm long, at a depth of 8 m, on bottoms of muddy sand, on a tube of the Polychaeta *Chaetopterus variopedatus* covered with the hydrozoa *Antennella secundaria* with numerous spawns of *Doto* sp.

**Distribution in Galicia**: Quoted by Urgorri & Besteiro (1983, 1984, both as *C. glaucoides*) and Calado & Urgorri (2002).

**Remarks**: As it was previously commented, the specimens listed in the Material were mistakenly listed as *C. glaucoides* by Urgorri & Besteiro (1983, 1984); therefore, they all constitute the part of the type series collected in Galicia and the specimen of 05/08/1978 is Paratype 2; the type series Material from Galicia is deposited in the collection of Victoriano Urgorri at the Universidade de Santiago de Compostela (Spain).

Family TERGIPEDIDAE Thiele, 1931

*Cuthona nana* (Alder & Hancock, 1842)

**Material**: San Amede (Ría de Ares), 27/08/1985, (43° 23’ 23” N; 008° 16’ 15” W). 2 specimens on *Hydractinia echinata* located on shells occupied by *Pagurus bernhardus* on muddy sand bottoms at a depth of 16 m. A Graña (Ría de Ferrol), (43° 28’ 44” N; 008° 15’ 33” W), 8 specimens collected on *Hydractinia echinata* located on shells occupied by *Pagurus bernhardus* on mud bottoms at a depth of 11-12 m: 13/09/1985, 16/02/1987, 26/03/1994. Rabo da Poreca (Ría de Ferrol), 11/05/1987 (43° 27’ 27” N; 008° 18’ 15” W). 3 specimens on *Hydractinia echinata* with *Pagurus bernhardus* on gravel bottoms, mud and shells at a depth of 16 m.

**Distribution in Galicia**: So far unknown on our coasts, it is the first quote in Galicia.

**Remarks**: *Cuthona nana* is not a rare species on our littoral despite not being mentioned so far in Galicia or any other locality of the Iberian Peninsula (Cervera *et al*., 2004), the absence of previous mentions may be due to the specific habitat it lives in: on *Hydractinia echinata* which covers the shells occupied by the small and medium sized hermit crab *Pagurus bernhardus*. It is not easy to detect in situ the presence of *C. nana* on the hydaria, as its cerata may be mistaken for the tentacles of the polyps. By studying the shells covered with *H. echinata* under stereoscopic microscope, not only can the nudibranch be distinguished, but also its spawn in the shape of a cord with its eggs grouped together like rosary beads.

**DISCUSSION**

The systematic studies have been given a boost in the last decades, not only due to the use of new techniques and instruments, but also due to a more modern conception than the mere descriptions of external anatomy of the animals. New species are described based on observations *in vivo*, with morphological criteria, external and internal, reproductive and trophic and sometimes primarily distinguished by ecological criteria (Calado & Urgorri, 2002). The revisions and monographs of genera and other superior taxonomic categories are made with wide collections of animals from different geographical areas and to a great extent they are already based on morphological or morphological-molecular phylogenetic analyses (Valdés, 2002). Undoubtedly, systematics is a formative Science of continuous learning, so wide that it may go further than the length of the scientific life of any researcher; it is complex, difficult and to a certain extent elitist, as those who do not have this capacity, are limited in the right understanding of biodiversity. Due to its inherent difficulty, it is sometimes disdained for those who do not know it, but the ecological, and evolutionary value and even the value as heritage that the knowledge of biodiversity has recently won, has given Science its worth in a way it had never had before.

Therefore, the renewed importance of inventories of species living in different environments and specific
geographical areas, is unquestionable to document biodiversity. This allows us to have a more accurate view of the functioning of benthonic communities, to know how far a single species can colonize an area and how big and uneven the areas of high or low biodiversity are. Galicia is a geographical area, which needs some faunistic studies and analyses that can give a real view of the dimension of biodiversity, which is why contributions as those presented in this article are so important.

As a whole, the 36 species of Opisthobranchia quoted correspond to: 1 Cephalaspidea, 1 Anaspidea, 2 Acochlidiomorpha, 2 Sacoglossa, 14 Nudibranchia Anthobranchia, 16 Nudibranchia Cladobranchia, of which 3 are Dendronotina, 2 Arminina and 11 Aeolidina. Of these, 13 species are quoted for the first time in Galicia, of which there was no record on our coasts: Gastropteron rubrum, Okenia aspersa, Thecacera pennigera, Chromodoris luteorosea, Doto floridicola, Armina maculata, Armina tigrina, Flabellina affinis, Aeolidiella glauca, Cerberilla bernadettae, Eubranchus linensis, Pseudovermis papillifer and Cuthona nana.

In general, they are all rare or little frequent species on our coasts, with the exception of Cuthona nana and Cerberilla bernadettae, which are present in very specific habitats that make them go unnoticed.

Of the 23 remaining species that are mentioned in this article, Aplysia fasciata, Hermaea bifida, Hypselodoris cantabrica, Cadlina pellucida, Dendrodoris herytra, Doto tuberculata and Babakina anadoni are quoted for the second time on our coasts. Babakina anadoni is the rarest presence, as such a striking animal does not easily go unnoticed and the scarce specimens observed, were isolated individuals that could not be assigned to a specific habitat. In contrast, Hypselodoris cantabrica and Doto tuberculata are very frequent, at least at the ‘rias’ of Golfo Ártabro; H. cantabrica is plentiful on rocky bottoms, beaten infralittorals under the laminarian forest and D. tuberculata in deeper rocky areas of less beaten environments, always in the lowest areas of the rocks under the hydrozoa Sertularella gayi whose colonies are covered with a thin film of very thin mud which makes the animal practically indiscernible.

Not many other records of Asperpina loricata and Microhedyle glandulifera apart from those presented by Cobo (1985) are provided herein, but the inclusion of these species is due to a double reason that had to be clarified. Arnaud et al. (1986) did not collect or study any specimens from Galicia as their mention was taken from the dissertation of Cobo (1984); besides, the quotes by Cobo (1985) went unnoticed as they were published in a small popular science book.

With this aim, the mention of Calma glaucoides and C. gobioophaga, species recently published by Calado & Urgorri (2002), is included herein. In this article, C. gobioophaga is described as a new species, based on specimens from Portugal and Galicia, but the Galician specimens prior to 1983 were quoted by Urgorri & Besteiro (1983, 1984) as C. glaucoides, which is why it was important to clarify which of these belonged to the first or second species.

Discodoris stellifera and Geitodoris planata were included with an identical clarifying intention. The specimens captured prior to 1983 were all quoted by Urgorri & Besteiro (1983, 1984) as Discodoris planata, which is why it was important to clarify which of those quotes corresponded to G. planata and which to D. stellifera. Besides, new records of both species are incorporated and information on the specific habitat that both occupy at the Ría de Ferrol is provided, as well as the diet of D. stellifera, which feeds on the Porifera Hymeniacidon sanguinea proved by analysis of the spicules contained in its faecal pellets.

Of the rest of species: Hermaeopsis variopicta, Corambe testudinaria, Trapania tartanella, Trapania maculata, Trapania pallida, Crimora papillata, Discodoris rosi, Tritonia plebeia, Favorinus bilianus and Pruvotfolia pseillotes, new localities are provided which extend their distribution on the Galician coasts, despite being previously quoted in Galicia and little frequent or rare species.
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REFERENCES


ADDITIONS TO THE INVENTORY OF MOLLUSCA OPISTHOBRANCHIA OF GALICIA (NW IBERIAN PENINSULA)

Journal of Molluscan Studies, 56: 585-593.


MacAndrew, R. (1850). Notes on the Distribution and Range in depth of Mollusca and other Marine Animals observed on the coasts of Spain, Portugal, Barbary, Malta, and Southern Italy. Reports of the British Association for the Advancement of Science, 8: 265-268.


