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Marine invertebrate fauna of the Chausey archipelago: an annotated checklist of historical data from 1828 to 2008

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Abstract: The first updated list of the marine invertebrate fauna of the Chausey archipelago (Normand-Breton Gulf, France) is presented. All publications regarding the natural history of the area, as well as the existing collections of marine invertebrates from 1828 to 2008 were examined. A total of 769 species (including 245 Arthropoda, 197 Mollusca, 146 Polychaeta), have been recorded in this area covering 5000 ha. This species richness is largely the result of the complexity of benthic habitats of the archipelago and its long history of field work, dating back to the 19th Century. The historical data set of this region presents an opportunity to assess long-term changes in nearshore communities and to design conservation sites based on their scientific value.

Résumé : Invertébrés marins de l'archipel des Iles Chausey : une liste commentée des données publiées de 1828 à 2008. La première liste actualisée des invertébrés marins de l'archipel des Iles Chausey (Golfe Normand-Breton, France) est proposée. L'ensemble des manuscrits publiés de 1828 à 2008 relatifs à l'histoire naturelle du site, ainsi que différentes collections d'invertébrés marins ont été explorés. Un total de 769 espèces (parmi lesquelles 245 arthropodes, 197 mollusques, 146 polychètes), a été recensé sur ce site ne couvrant que 5000 ha. La complexité de la mosaïque d'habitats benthiques du site ainsi que son histoire naturaliste particulièrement riche, débutant dès le début du 19^{ème} siècle, expliquent largement cette richesse spécifique. Un tel jeu de données historiques sur un seul site donne une opportunité d'évaluation des changements à long terme sur le littoral et souligne l'enjeu de conservation d'un site au regard de sa valeur scientifique.

Keywords: Chausey • Marine invertebrates • Inventory • Historical data

Introduction

Fauna and flora inventories are critical components in designing conservation policies. However, historical data are often lacking along the world's coastlines and it is often difficult for scientists to assess long-term impacts of human activities. European countries such as Denmark (e.g. Petersen, 1913 & 1915), Sweden (e.g. Molander, 1928), the United Kingdom (e.g. Holme, 1950 & 1961), and France (e.g. Cabioch, 1968) are among those benefiting from historical data on invertebrate marine fauna. In France, the analysis of works by early naturalists has led to updated checklists of marine species for several coastal areas (e.g. De Montaudoin & Sauriau, 2000; Bachelet et al., 2003; Dauvin et al., 2003) and has permitted the assessment of long-term changes in the spatial distribution of invertebrate species or habitats (e.g. Godet et al., 2008).

The Chausey archipelago (Normand-Breton Gulf, France, Fig. 1) can be considered as a 'living museum' of French marine biology which merits conservation due to its high scientific value (Godet, 2008). However, with the exception of Godet (2008), no comprehensive review has been conducted in this area. In this paper, we present the first checklist of the marine invertebrates of the Chausey archipelago.

Material and Methods

Fifty-two manuscripts, three zoological collections, and a series of recent personal observations related to marine invertebrate fauna of Chausey Archipelago were examined in this study. All sources are numbered in chronological order (included in the caption of the Table 1).

We compiled all data on marine invertebrate species in a checklist (Table 1) including: i) species names with classification by Phylum, Class, and Order; ii) the source of the original data; and iii) information on the storage of type specimens in the collections of the French Museum of Natural History.

The species names and classification have been updated according to the European Register of Marine Fauna (Costello et al., 2001). Specimens identified to the genus level (e.g. *Capitella* sp.) are mentioned only if they are the single members of this genus having been reported in Chausey. Finally, collection catalogues available at the French Museum of Natural History were examined to identify potential holotypes (H) and syntypes (S) (column 'T' - Table 1) that were collected from Chausey for the following groups: Mollusca, Crustacea, Polychaeta, and Octocorallia.

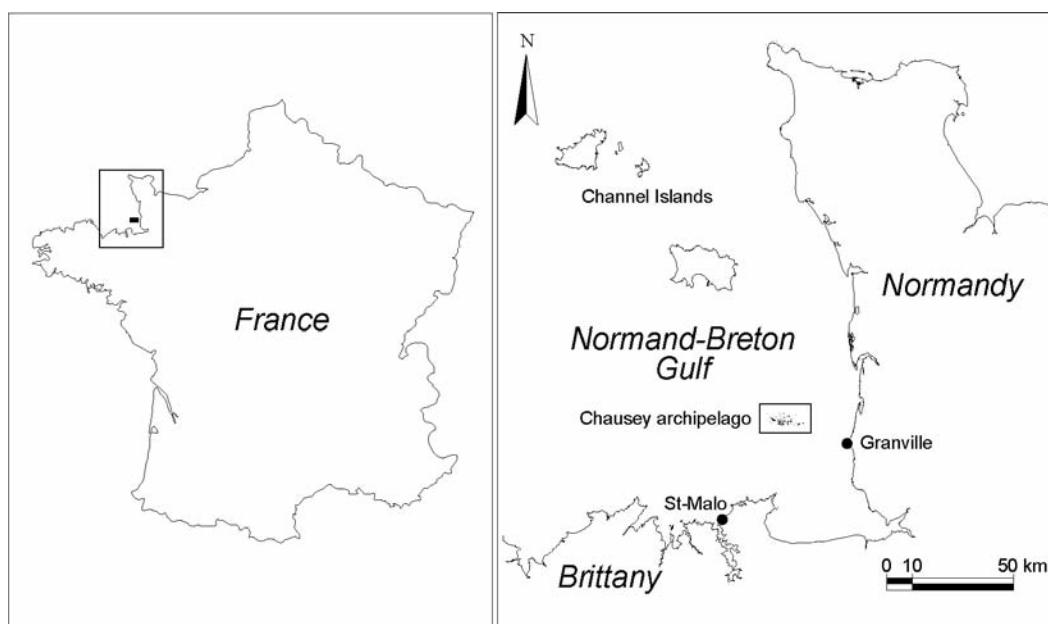


Figure 1. Location map of the study site.

Figure 1. Carte de localisation du site d'étude.

Results

A total of 14 phyla and 769 species have been reported from Chausey (Table 1), among which Arthropoda (245

species), Mollusca (197 species) and Polychaeta (146 species) covered more than 75% of the total species number (Fig. 2).

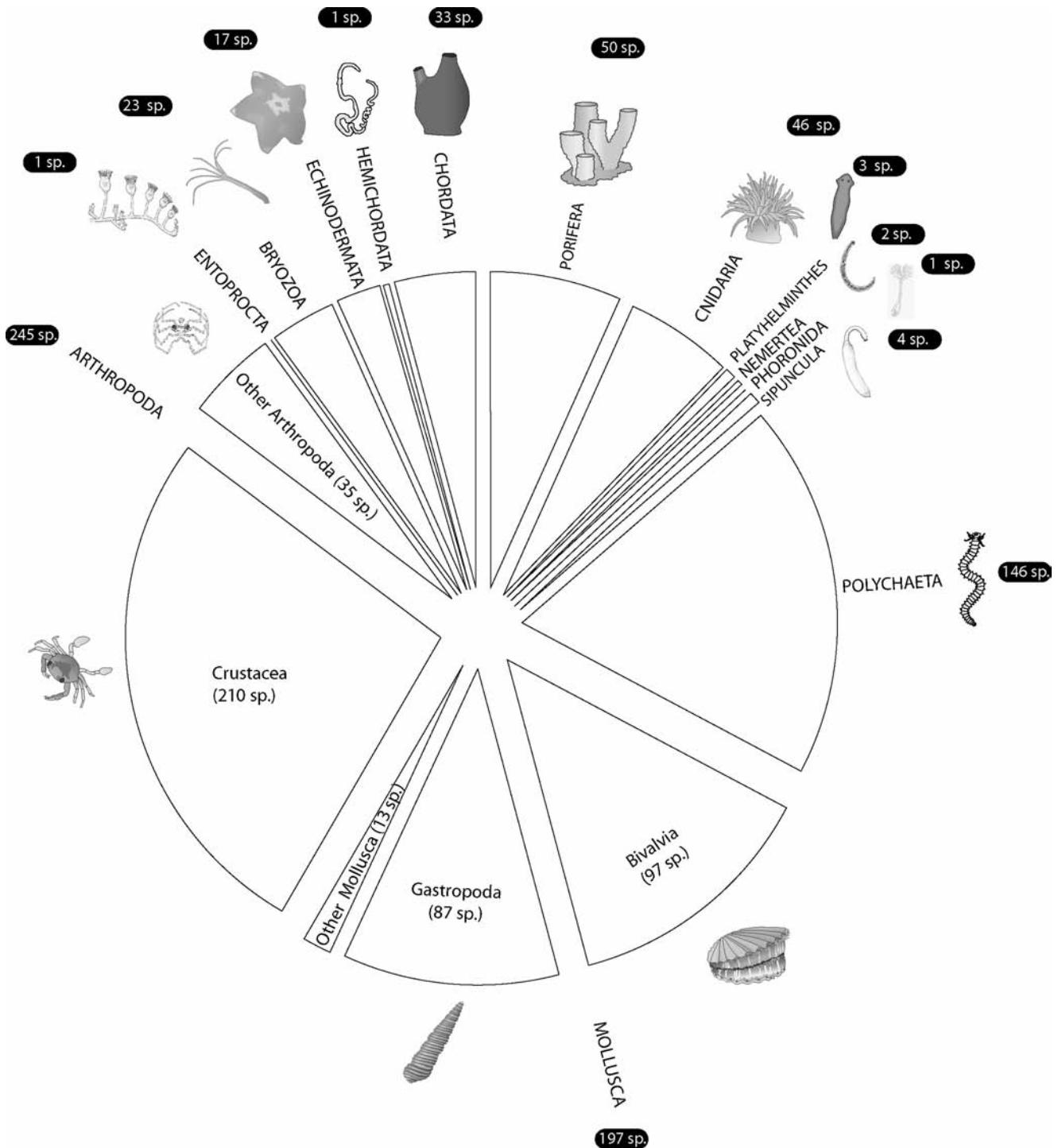


Figure 2. Total number of marine invertebrates reported in Chausey, sorted by phyla.
Figure 2. Nombre total d'invertébrés marins recensés à Chausey, classés par phyla.

Table 1. Updated checklist of the marine invertebrate species reported in Chausey.

Holotypes (H) and Syntypes (S) collected in Chausey are mentioned in the 'T' (Type) column.

Tableau 1. Liste actualisée des invertébrés marins recensés à Chausey. Les Holotypes (H) et Syntypes (S) récoltés à Chausey sont mentionnés dans la colonne 'T' (Type).

(1) Audouin & Milne-Edwards, 1828; (2) Milne-Edwards & Audouin, 1832; (3) De Quatrefages, 1854; (4) Crié, 1876; (5) Locard, 1886; (6) Fisher, 1887; (7) Joyeux-Laffuie, 1891; (8) Canu, 1894; (9) Gadeau de Kerville, 1894a; (10) Gadeau de Kerville, 1894b; (11) Troussart, 1894; (12) Gadeau de Kerville, 1898; (13) Gadeau de Kerville, 1901; (14) Fauvel, 1905; (15) Sinel, 1906; (16) Joubin, 1910; (17) De Beauchamp, 1923; (18) Harant, 1924; (19) Pasquet, 1923 (20) Fisher-Piette, 1932; (21) Fisher-Piette, 1936; (22) Gruvel & Fisher-Piette, 1939; (23) Bertrand, 1940; (24) Bertrand, 1941; (25) Bertrand, 1949; (26) Gaillard, 1955; (27) Lubet, 1968; (28) Lami, 1972; (29) Benard et al., 1975; (30) Hamon, 1983; (31) Debout & Leneveu, 1993; (32) Livory, 1995; (33) Noël et al., 1995; (34) Livory, 1996; (35) Severijns, 1996; (36) Livory, 1997; (37) Livory, 1997-1998; (38) Elder, 1998; (39) Le Monnier, 1998; (40) Livory, 1998; (41) Livory, 2000a; (42) Castric-Fey et al., 2001; (43) Livory, 2000b; (44) Livory, 2002; (45) Ngoc-Hô, 2003; (46) Ecosub, 2006; (47) Livory, 2007; (48) Godet, 2008; (49) Le Granché, 2008; (50) Nebout et al., 2008; (51) Nebout & Olivier, in prep.; (52) Grant, in prep; (53) personal observations (C1) Dautzenberg collection of the French Museum of Natural History; (C2) coleopteran collection of the Marine Station of Dinard; (C3) Collections of the French Museum of Natural History.

Species names	Author's Source	T	
 Phylum Porifera			
Class Calcarea			
<u>Order Clathrinida</u>			
<i>Clathrina coriacea</i> (Montagu, 1818)	17		
<u>Order Leucosolenida</u>			
<i>Grantia compressa</i> (Fabricius, 1780)	17,19		
<i>Leucosolenia variabilis</i> (Haeckel, 1870)	49		
<i>Sycon ciliatum</i> (Fabricius, 1780)	46,49		
Class Demospongiae			
<u>Order Astrophorida</u>			
<i>Pachymastima johnstonia</i> Bowenbank in Johnston, 1841	14,17,46,49		
<i>Stellella grubii</i> (Schmidt, 1862)	17		
<i>Striphnus ponderosus</i> (Bowerbank, 1866)	46		
<u>Order Chondrosida</u>			
<i>Thymosia guernei</i> Topsent, 1895	49		
<u>Order Dictyoceratida</u>			
<i>Dysidea fragilis</i> (Montagu, 1818)	9,17,46,49		
<u>Order Hadromerida</u>			
<i>Adreus fascicularis</i> (Bowerbank, 1866)	17,46,49		
<i>Homaxinella subdola</i> (Bowerbank, 1866)	46		
<i>Polymastia boletiformis</i> (Lamarck, 1813)	46,49		
<i>Polymastia mamillaris</i> (Müller, 1806)	46,49		
<i>Pseudosuberites sulphureus</i> (Bean in Bowerbank, 1866)	9		
<i>Stelligera rigida</i> (Montagu, 1818)	17,46,49		
<i>Stelligera stuposa</i> (Montagu, 1818)	46		
<i>Suberites carnosus</i> (Johnston, 1841)	46,49		
<i>Suberites ficus</i> (Johnston, 1841)	9,14,46		
<i>Tethya aurantium</i> (Pallas, 1766)	17,46,48,49		
<u>Order Halichondrida</u>			
<i>Axinella damicornis</i> (Esper, 1794)	46,49		
<i>Axinella dissimilis</i> (Bowerbank, 1866)	46,49		
<i>Axinella egregia</i> sensu Uriz & Maldonado, 1993	46		
<i>Axinella polypoides</i> Schmidt, 1862	46		
<i>Ciocalypta penicillus</i> Bowerbank, 1862	46,49		
<i>Halichondria</i> spp. (Pallas, 1766)	17,46,49		
<i>Higginsia pumila</i> (Keller, 1889)	49		
<i>Hymeniacidon perlevis</i> (Montagu, 1818)	9		
<i>Raspailia agnata</i> (Topsent, 1896)	46		
<i>Raspailia hispida</i> (Montagu, 1818)	46		
<i>Raspailia ramosa</i> (Montagu, 1818)	17,46,49		
<u>Order Haplosclerida</u>			
<i>Chalinula limbata</i> (Montagu, 1818)	9		
<i>Haliclona cinerea</i> (Grant, 1825)	9		
<i>Haliclona elegans</i> (Bowerbank, 1866)			17
<i>Haliclona fistulosa</i> (Bowerbank, 1866)			17
<i>Haliclona indistincta</i> (Bowerbank, 1866)			9
<i>Haliclona oculata</i> (Pallas, 1766)			46
<i>Haliclona simulans</i> (Johnston, 1841)			17,46,49
<i>Halicolona viscosa</i> (Topsent, 1888)			46
<u>Order Poecilosclerida</u>			
<i>Amphilectus fucorum</i> (Esper, 1794)			46,49
<i>Clathria (Microconia) atrasanguinea</i> (Bowerbank, 1862)			49
<i>Crella rosea</i> (Topsent, 1892)			46,49
<i>Hemimycale columella</i> (Esper, 1794)			46,49
<i>Mycale contareni</i> (Martens, 1823)			14,17
<i>Mycale irregularis</i> (Czerniavski, 1880)			9
<i>Mycale macilenta</i> (Bowerbank, 1866)			9,49
<i>Mycale subclavata</i> (Bowerbank, 1866)			46
<i>Myxilla rosacea</i> (Lieberkühn, 1859)			17
<i>Phorbas fictitius</i> (Bowerbank, 1866)			46,49
Class Homoscleromorpha			
<u>Order Homosclerophorida</u>			
<i>Oscarella lobularis</i> (Schmidt, 1862)			17,46
 Phylum Cnidaria			
Class Staurozoa			
<u>Order Stauromedusae</u>			
<i>Halicystus octoradiatus</i> (Lamarck 1816)			14
<i>Lucernariopsis campanulata</i> (Lamouroux, 1815)			14
Subphylum Medusozoa			
Class Hydrozoa			
<u>Order Capitata</u>			
<i>Ectopleura larynx</i> (Ellis & Solander, 1786)			17
<i>Tubularia indivisa</i> Linnaeus, 1758			49
<u>Order Conica</u>			
<i>Aglaephinia tubulifera</i> (Hincks, 1861)			46
<i>Diphasia attenuata</i> (Hincks, 1866)			46
<i>Dynamena pumila</i> (Linnaeus, 1758)			46
<i>Haleciump haleciump</i> (Linnaeus, 1758)			46,49
<i>Hydrallmania falcata</i> (Linnaeus, 1758)			46
<i>Nemertesia antennina</i> (Linnaeus, 1758)			46,49
<i>Nemertesia ramosa</i> (Lamarck, 1816)			4,46,49
<i>Sertularella gayi</i> (Lamouroux, 1820)			46
<i>Sertularia cupressina</i> Linnaeus, 1758			4
<i>Sertularia distans</i> Lamouroux, 1816			46
<u>Order Proboscioidea</u>			
<i>Campanularia</i> sp. Lamarck, 1816			46
<i>Clytia hemisphaerica</i> (Linnaeus, 1767)			46
<i>Obelia geniculata</i> (Linnaeus, 1758)			46,49

Subphylum Anthozoa**Class Octocorallia****Order Alcyonacea***Alcyonium coralloides* (Pallas, 1766) 46,49*Alcyonium digitatum* Linnaeus, 1758 46*Alcyonium glomeratum* (Hassal, 1842) 17*Alcyonium palmatum* Pallas, 1766 14**Order Gorgonacea***Eunicella verrucosa* (Pallas, 1766) 14,46,49**Class Hexacorallia****Order Ceriantharia***Cerianthus lloydii* Gosse, 1859 35,46,48,49*Cerianthus membranacea* (Spallanzani, 1784) 17,46,49**Order Zoantharia***Epizoanthus couchii* (Jonston in Couch, 1844) 46*Parazoanthus anguiculus* (Norman, 1868) 46**Order Actinaria***Actinia equina* (Linnaeus, 1758) 17,35,48,49*Actinothoe sphyrodetes* (Gosse, 1858) 46,49*Aiptasia mutabilis* (Gravenhorst, 1830) 14,17,35,46,49*Anemonia viridis* (Forskål, 1775) 9,35,46,48,49*Aurelia heterocera* (Thompson, 1853) 35*Bunodactis verrucosa* (Pennant, 1777) 35*Calliactis parasitica* (Couch, 1837) 48,49*Cereus pedunculatus* (Pennant, 1777) 35,46,48,49,50*Edwardsia beautempsi* Quatrefages, 1841 3,17*Edwardsia timida* Quatrefages, 1841 14*Haliplanella luciae* (Verrill, 1899) 35*Sagartia elegans* (Dalyell, 1848) 49*Scolanthus callimorphus* Gosse, 1853 35*Urticina felina* (Linnaeus, 1767) 17,46,49**Order Scleractinia***Balanophyllia regia* Gosse, 1860 14,17*Caryophyllia smithii* Stokes et Broderip, 1828 14,17,49*Hoplangia durotrix* Gosse, 1860 46*Leptopsammia pruvoti* Lacaze-Duthiers, 1897 42**Order Corallimorpharia***Corynactis viridis* Allman, 1846 17,46,49**Superclass Scyphozoa****Order Semaeostomeae***Chrysaora hysoscella* (Linnaeus, 1767) 49**Phylum Platyhelminthes****Class Turbellaria****Order Acoela***Convoluta roscoffensis* Graff, 1882 7,14,17,28,29,35,48**Order Polycladida***Prostheceraeus vittatus* (Montagu, 1815) Lang 884 49**Order Prolecithophora***Plagiostomum* sp. Schmidt, 1852 17**Phylum Nemertea****Class Anopla***Tubulanus polymorphus* Renier, 1804 48*Valencinia longirostris* Quatrefages, 1846 14**Phylum Phoronida***Phoronis* sp. 48**Phylum Sipuncula****Class Sipunculidea***Golfingia elongata* (Keferstein, 1862) 14,17,30,48*Golfingia vulgaris* (de Blainville, 1826) 17,30,48*Nephasoma minutum* (Keferstein, 1862) 14*Phascolion strombi* (Montagu, 1804) 30**Phylum Annelida****Class Polychaeta****Order Capitellida***Arenicola marina* (Linnaeus, 1758) 9,48,50,51,52*Capitella capitata* (Fabricius, 1780) 30,48,50*Capitella minima* Langerhans, 1880 50,51*Clymenura clypeata* (de Saint Joseph, 1894) 17,30,48*Clymenura tricirrata* (Bellan & Reys, 1967) 48*Euclymene droebachiensis* (M. Sars, 1872) 48,52*Euclymene oerstedi* (Claparède, 1863) 30,48*Mediomastus fragilis* Rasmussen, 1973 30,52*Notomastus latericeus* M. Sars, 1851 17,30,48,50,51,52*Petaloprotus terricola* Quatrefages, 1865 17,48*Praxillella affinis* (M. Sars in G.O. Sars, 1872) 52**Order Eunicida***Arabella (Arabella) iricolor* (Montagu, 1804) 52*Dorvillea rubrovittata* (Grube, 1855) 14*Eunice harassii* Audouin & Milne-Edwards, 1832 9,14,17,52*Lumbrineriopsis paradoxa* (Saint-Joseph, 1888) 52*Lumbrineris fragilis* (O.F. Müller, 1766) 52*Lumbrineris gracilis* (Ehlers, 1868) 30 P*Lumbrineris latreilli* Audouin & Milne-Edwards, 1833 14,48,52 HS*Lysidice ninetta* Audouin & Milne-Edwards, 1832 14,52*Marphysa bellii* Audouin & Milne-Edwards, 1832 14,48,50,51 S*Marphysa sanguinea* (Montagu, 1815) 17,48*Nematoneurus unicornis* (Grube, 1839) 9,30,48*Ophryotrocha* sp. Claparède & Mecznikow, 1869 52*Protodorvillea kefersteini* (McIntosh, 1869) 30,48,52*Schistomerings caeca* (Webster & Benedict, 1884) 48*Schistomerings neglecta* (Fauvel, 1922) 30*Schistomerings rudolphi* (Delle Chiaje, 1827) 48**Order Ophelida***Armandia polyophtalma* Kukenthal, 1887 14*Ophelia celtica* Amoureaux & Dauvin, 1981 30*Ophelia rathkei* McIntosh, 1908 30(?)48,52*Scalibregma celticum* Mackie, 1991 30,48*Travisia forbesi* Johnston, 1839 17,30,48**Order Orbiniida***Aricidea jeffreysi* (McIntosh, 1879) 52*Orbinia cuvieri* (Audouin & Milne Edwards, 1833) 52*Orbinia latreillii* (Audouin & Milne-Edwards, 1832) 14*Orbinia serulata* (Savigny, 1820) 14*Paradoneis fulgens* (Levinsen, 1884) 30,52*Paradoneis lyra* (Southern, 1914) 48,52*Scoloplos armiger* (O. F. Müller, 1776) 30,48,50,51**Order Oweniida***Myriochele oculata* Zachs, 1922 48,50,51**Order Phyllodocida***Alemtia gelatinosa* (M. Sars, 1834) 9*Brania pusilla* (Dujardin, 1851) 52

<i>Eteone longa</i> (Fabricius, 1780)	30,48,51	
<i>Eulalia mustela</i> Pleijel, 1987	52	
<i>Eulalia viridis</i> (Johnston, 1828)	35,49,52	
<i>Eumida punctifera</i> (Grube, 1860)	17	
<i>Eumida sanguinea</i> (Oersted, 1842)	30,48	
<i>Eunereis longissima</i> (Johnston, 1839)	30,50,52	
<i>Exogone</i> (<i>Exogone</i>) <i>naidina</i> Örsted, 1845	48,52	
<i>Exogone</i> (<i>Parexogone</i>) <i>hebes</i> (Webster & Benedict, 1884)	30,48,51,52	
<i>Fimbriosthenelais zealandica</i> (McIntosh, 1876)	30	
<i>Glycera capitata</i> Oersted, 1842	30,52	
<i>Glycera gigantea</i> Quatrefages, 1865	30,48	
<i>Glycera lapidum</i> Quatrefages, 1865	52	
<i>Glycera oxycephala</i> Ehlers, 1887	48,52	
<i>Goniada emerita</i> Audouin & Milne-Edwards, 1832	14	
<i>Goniadella bobrezkii</i> (Annenkova, 1928)	30,48,52	
<i>Harmothoe extenuata</i> (Grube, 1839)	9,48,52	
<i>Harmothoe impar</i> (Johnston, 1838)	48	
<i>Hediste diversicolor</i> (O.F. Müller, 1776)	31,48	
<i>Hesionura elongata</i> (Southern, 1914)	52	
<i>Hesiospina similis</i> (Hessle, 1924)	30	
<i>Kefersteinia cirrata</i> (Keferstein, 1862)	52	
<i>Lepidonotus squamatus</i> (Linnaeus, 1758)	30	
<i>Malmgreniella arenicola</i> (de Saint Joseph, 1888)	30,48,50,52	
<i>Micropthalmus pseudoaberrans</i> Campoy & Vieitez, 1982	52	
<i>Myrianida prolifera</i> (O.F. Müller, 1788)	52	
<i>Neanthes irrorata</i> (Malmgren, 1867)	17,30,48	
<i>Nephys caeca</i> (Fabricius, 1780)	9,30,48,52	
<i>Nephys cirrosa</i> Ehlers, 1868	30,48,52	
<i>Nephys hombergii</i> Savigny, 1818	30,48,50,51,52	
<i>Nephys incisa</i> Malmgren, 1865	30	
<i>Odontosyllis</i> sp. Claparede, 1863	30	
<i>Palposyllis prosostoma</i> Hartmann-Schröder, 1977	30,52	
<i>Parapionosyllis minuta</i> (Pierantoni, 1903)	48,52	
<i>Perinereis cultrifera</i> (Grubé, 1839)	48,52	
<i>Pholoe inornata</i> Johnston, 1838	30,48	
<i>Phyllodoce</i> (<i>Anaitides</i>) <i>mucosa</i> Oersted, 1842	30,48,50	
<i>Plakosyllis brevipes</i> Hartmann-Schröder, 1956	52	
<i>Platyneris dumerilii</i> (Audouin & Milne-Edwards, 1832)	9,48	
<i>Polynoe laevis</i> Audouin & Milne Edwards, 1831	C3	
<i>Polynoe scolopendrina</i> Savigny, 1818	9	
<i>Protomystides bidentata</i> Lagerhans	52	
<i>Pseudomystides limbata</i> de Saint Joseph, 1888	30	
<i>Salvatoria swedmarki</i> (Gidholm, 1962)	52	
<i>Signalon mathildae</i> Audouin & Milne Edwards in Cuvier, 1829	14	
<i>Sphaerosyllis bulbosa</i> Southern, 1914	30,48,52,52	
<i>Sphaerosyllis glandulata</i> Perkins, 1981	52	
<i>Sphaerosyllis taylori</i> Perkins, 1981	30,52	
<i>Sthenelais boa</i> (Johnston, 1832)	30	
<i>Streptosyllis bidentata</i> Southern, 1914	30	
<i>Streptosyllis campoyi</i> Brito, Núñez & San Martín, 2000	52	
<i>Streptosyllis websteri</i> Southern, 1914	48,52	
<i>Syllides</i> sp. Örsted, 1845	52	
<i>Syllis amica</i> Quatrefages, 1865	30	
<i>Syllis armillaris</i> (O.F. Müller, 1776)	30	
<i>Syllis cornuta</i> Rathke, 1843	30	
<i>Syllis garciae</i> (Campoy, 1982)	48,52	
<i>Syllis hyalina</i> Grube, 1863	30	
<i>Syllis pontxioi</i> San Martin & López, 2000	48,52	
<i>Symmersyllis</i> (<i>Pionosyllis</i>) <i>lamelligera</i> Saint Joseph, 1887	52	
<i>Trypanosyllis coeliaca</i> Claparède 1868	52	
<i>Websterinereis glauca</i> (Clarapède, 1870)	48	
Order Sabellida		
<i>Bispira volutacornis</i> (Montagu, 1804)	46,49	
<i>Fabricia sabella</i> (Ehrenberg, 1835)	48	
H		
S		
		
Phylum Mollusca		
Class Polyplacophora		
Order Neoliricata		
<i>Callochiton septemvalvis</i> (Montagu, 1803)		
Order Lepidopleurida		
<i>Acanthochitona crinita</i> (Pennant, 1777)		
<i>Acanthochitona fascicularis</i> (Linnaeus, 1767)		
<i>Leptochiton asellus</i> (Gmelin, 1791)		
<i>Lepidochiton cinerea</i> (Linnaeus, 1767)		
<i>Leptochiton cancellatus</i> (Sowerby, 1839)		
Class Gastropoda		
Subclass Prosobranchia		
Order Archeogastropoda		
<i>Acmaea virginea</i> (O. F. Müller, 1776)		
<i>Ansates pellucida</i> (Linnaeus, 1758)		
<i>Calliostoma granulatum</i> (Von Born, 1778)		
<i>Calliostoma zizyphinum</i> (Linnaeus, 1758)		
		5,7,9,27,35,46,49
		6
		27
		27,30
		14,17
		14,30,51
		30,48,50,51,52
		48,50,51,52
		14
		48,50,51
		30,48,50,51,52
		9,30,48,50,51,52
		30
		48
		30
		30,48,50,51
		14,30
		48
		14,17
		1,17,30,35,48,51,52
		14,30,51
		48,52
		30,48
		17
		22
		52
		30
		48,52

<i>Clelandella miliaris</i> (Bocchi, 1814)	5	<i>Otina ovata</i> (Brown, 1827)	5
<i>Diodora graeca</i> (Linnaeus, 1758)	9,17,27,35	<u>Order Pulmonata</u>	
<i>Emarginula fissura</i> (Linnaeus, 1758)	5,6	<i>Myosotella myosotis</i> (Draparnaud, 1801)	53
<i>Gibbula cineraria</i> (Linnaeus, 1758)	5,9,27,35,49	Subclass Opisthobranchia	
<i>Gibbula magus</i> (Linnaeus, 1758)	5,7,9,27,30,35,48,49,52	<u>Order Cephalaspidea</u>	
<i>Gibbula pennanti</i> (Philippi, 1846)	9,27,35,48,49	<i>Acteon tornatilis</i> (Linnaeus, 1758)	27
<i>Gibbula tumida</i> (Montagu, 1803)	6,9	<i>Haminoea hydatis</i> (Linnaeus, 1758)	27
<i>Gibbula umbilicalis</i> (da Costa, 1778)	6,9,27,35,46,48	<i>Philine aperta</i> (Linnaeus, 1767)	27
<i>Haliotis tuberculata</i> (Linnaeus, 1758)	5,9,14,16,17,27,29,35,48,49	<u>Order Sacoglossa</u>	
<i>Jujubinus exasperatus</i> (Pennant, 1777)	5	<i>Elysia viridis</i>	9,27
<i>Jujubinus montagui</i> (Wood W., 1828)	5	<i>Limapontia capitata</i> (O. F. Müller, 1776)	27
<i>Jujubinus striatus</i> (Pennant, 1777)	9,35	<u>Order Notaspidea</u>	
<i>Ostrea lineatus</i> (da Costa, 1778)	5,9,27,30,35,48	<i>Berthella plumula</i> (Montagu, 1803)	9,14
<i>Patella intermedia</i> Murray in Knap, 1857	20,35	<u>Order Anaspidea</u>	
<i>Patella ulysssiponensis</i> Gmelin, 1791	5,9,27,35	<i>Aplysia depilans</i> Gmelin, 1791	5,27
<i>Patella vulgata</i> Linnaeus, 1758	20,27,35	<i>Aplysia punctata</i> (Cuvier, 1803)	26,46,49
<i>Tectura virginea</i> (O.F. Müller, 1776)	52	<u>Order Nudibranchia</u>	
<i>Tricolia pullus</i> (Linnaeus, 1758)	27,49	<i>Aeolidia papillosa</i> (Linnaeus, 1761)	27
<u>Order Apogastropoda</u>		<i>Anisodoris marmorata</i> (Bergh, 1881)	17
<i>Bittium reticulatum</i> (da Costa, 1778)	9,27	<i>Archidoris pseudoargus</i> (Rapp, 1826)	17
<i>Buccinum undatum</i> Linnaeus, 1758	27	<i>Cadlina laevis</i> (Linnaeus, 1767)	49
<i>Caecum glabrum</i> (Montagu, 1803)	5	<i>Doto coronata</i> (Gmelin, 1791)	27
<i>Caecum trachea</i> (Montagu, 1803)	27	<i>Goniodoris castanea</i> Alder & Hancock, 1845	14,27
<i>Calyptraea chinensis</i> (Linnaeus, 1758)	5,7,22,27,30,35,46,48,49	<i>Goniodoris nodosa</i> (Montagu, 1808)	27
<i>Capulus hungaricus</i> (Linnaeus, 1758)	5	<i>Janolus cristatus</i> (delle Chiaje, 1840)	27,49
<i>Cerithiopsis tubercularis</i> (Montagu, 1803)	27	<i>Limacia clavigera</i> (O. F. Müller, 1776)	46
<i>Cingula trifasciata</i> (Adams, 1800)	27,35	<i>Okenia aspera</i> (Alder & Hancock, 1845)	27
<i>Crepidula fornicata</i> (Linnaeus, 1758)	27,35,46,48,49,52	<i>Polydora faeroensis</i> Lemche, 1928	46,49
<i>Crisilla semistriata</i> (Montagu, 1808)	9	<i>Polydora quadrilineata</i> (O. F. Müller, 1776)	14
<i>Epitonium clathrus</i> (Linnaeus, 1758)	27	<i>Rostanga rubra</i> (Risso, 1818)	14,27
<i>Euspira catena</i> (da Costa, 1778)	27,35	<i>Trapania</i> sp. Pruvot-Fol, 1931	46
<i>Euspira pulchella</i> (Risso, 1825)	27	<u>Order Systellommatophora</u>	
<i>Hydrobia ulvae</i> (Pennant, 1777)	27	<i>Onchidella celtica</i> (Forbes and Hanley, 1852)	C1,43
<i>Lacuna pallidula</i> (da Costa, 1778)	9,27	<u>Class Bivalvia</u>	
<i>Lacuna vincta</i> (Montagu, 1803)	27	Subclass Protobranchia	
<i>Lamellaria perspicua</i> (Linnaeus, 1758)	27	<u>Order Nuculoida</u>	
<i>Littorina fabalis</i> (Turton, 1824)	35	<i>Nucula nitidosa</i> Winckworth, 1929	5,27
<i>Littorina littorea</i> (Linnaeus, 1758)	9,27,35,48	<i>Nucula nucleus</i> (Linnaeus, 1758)	5,27
<i>Littorina obtusata</i> (Linnaeus, 1758)	9,27,30,48,52	<u>Order Arcoida</u>	
<i>Littorina saxatilis</i> (Olivier, 1792)	27,35,48	<i>Bathyarca pectunculoides</i> (Scacchi, 1834)	5
<i>Mangelia costata</i> (Donovan, 1804)	9	<i>Glycymeris glycymeris</i> (Linnaeus, 1758)	5,17,27,30,48,49,52
<i>Manzonia crassa</i> (Kanmacher, 1798)	27	<u>Order Mytiloida</u>	
<i>Marshallora adversa</i> (Montagu, 1803)	27	<i>Modiolarca subpicta</i> (Cantraine, 1834)	27
<i>Melarhaphe neritoides</i> (Linnaeus, 1758)	27	<i>Modiolus adriaticus</i> (Lamarck, 1819)	5,27
<i>Nassarius incrassatus</i> (Ström, 1768)	27,49	<i>Modiolus barbatus</i> (Linnaeus, 1758)	5,17,27
<i>Nassarius reticulatus</i> (Linnaeus, 1758)	9,27,35,46,48,49,50,51,52	<i>Modiolus modiolus</i> (Linnaeus, 1758)	5,27
<i>Nucella lapillus</i> (Linnaeus, 1758)	9,20,27,35,48,49	<i>Mytilus edulis</i> Linnaeus, 1758	20,27,48,52
<i>Ocenebra erinacea</i> (Linnaeus, 1758)	22,27,35,46,49	<i>Mytilus galloprovincialis</i> Lamarck, 1819	5,27
<i>Ocinebrina aciculata</i> (Lamarck, 1821)	9,27	<u>Order Pterioida</u>	
<i>Raphitoma linearis</i> (Montagu, 1803)	27,35	<i>Aequipecten opercularis</i> (Linnaeus, 1758)	5,27,46,49
<i>Rissoa membranacea</i> (Adams, 1800)	27	<i>Anomia ephippium</i> Linnaeus, 1758	5,22,27
<i>Rissoa parva</i> (da Costa, 1778)	9,27	<i>Chlamys varia</i> (Linnaeus, 1758)	9,22,27,35,48,49
<i>Tornus subcarinatus</i> (Montagu, 1803)	6	<i>Pecten maximus</i> (Linnaeus, 1758)	5,9,16,27,28,35,46,48,49
<i>Trivia arctica</i> (Pulteney, 1799)	35,46,49	<i>Pododesmus patelliformis</i> (Linnaeus, 1761)	5
<i>Trivia monacha</i> (da Costa, 1778)	7,9,27	<i>Pteria hirundo</i> (Linnaeus, 1758)	5
<i>Turritella communis</i> Risso, 1825	27	<u>Order Ostreoida</u>	
Subclass Caenogastropoda		<i>Crassostrea gigas</i> (Thunberg, 1793)	46
Order Neogastropoda		<i>Ostrea edulis</i> (Linnaeus, 1758)	27,48,49
<i>Raphitoma cordieri</i> (Payraudeau, 1826)	5	Subclass Heterodontia	
Subclass Heterobranchia		<u>Order Veneroida</u>	
<u>Order Heterostropha</u>		<i>Abra alba</i> (Wood, 1802)	27,30,35,48,49
<i>Chrysallida interstincta</i> (Adams, 1797)	27	<i>Abra nitida</i> (O. F. Müller, 1776)	27
<u>Order Archaeopulmonata</u>		<i>Abra tenuis</i> (Montagu, 1803)	48,50,51
<i>Myosotella denticulata</i> (Montagu, 1803)	9	<i>Acanthocardia aculeata</i> (Linnaeus, 1758)	27,48

<i>Acanthocardia echinata</i> (Linnaeus, 1758)	5	<i>Gastrochaena dubia</i> (Pennant, 1777)	6
<i>Acanthocardia tuberculata</i> (Linnaeus, 1758)	5,27	<i>Hiatella arctica</i> (Linnaeus, 1777)	27
<i>Arcopagia crassa</i> (Pennant, 1777)	5,27,30,35,48,52	<i>Mya arenaria</i> Linnaeus, 1758	27
<i>Astarte elliptica</i> (Brown, 1827)	5	<i>Mya truncata</i> Linnaeus, 1758	27
<i>Callista chione</i> (Linnaeus, 1758)	27	<i>Nototeredo norvegica</i> (Spengler, 1792)	27
<i>Capsella variegata</i> (Gmelin, 1791)	27,30,48,52	<i>Pholas dactylus</i> Linnaeus, 1758	27
<i>Cerastoderma edule</i> (Linnaeus, 1758)	5,9,27,29,35,48,51,51	<i>Teredo navalis</i> Linnaeus, 1758	27
<i>Cerastoderma glaucum</i> (Poiret, 1789)	5,27	Subclass Anomalodesmata	
<i>Chamelea gallina</i> (Linnaeus, 1758)	5	Order Pholadomyoidae	
<i>Clausinella fasciata</i> (da Costa, 1778)	27	<i>Cochlodesma praetenue</i> (Pulteney, 1799)	5
<i>Diplodonta rotundata</i> (Montagu, 1803)	27	<i>Lyonsia norwegica</i> (Gmelin, 1791)	6
<i>Donacilla cornea</i> (Poli, 1795)	5	<i>Pandora inaequivalvis</i> (Linnaeus, 1758)	27
<i>Donax vittatus</i> (da Costa, 1778)	5,27	<i>Thracia papyracea</i> (Poli, 1791)	27
<i>Dosinia exoleta</i> (Linnaeus, 1758)	5,27,30,48	<i>Thracia pubescens</i> (Pulteney, 1799)	27
<i>Dosinia lupulinus</i> (Linnaeus, 1758)	27	Class Scaphopoda	
<i>Ensis arcuatus</i> (Jeffreys, 1865)	30,35	<i>Antalis entalis</i> (Linnaeus, 1758)	5,27
<i>Ensis ensis</i> (Linnaeus, 1758)	17,27,48	<i>Antalis vulgaris</i> (da Costa, 1778)	5,35
<i>Ensis siliqua</i> (Linnaeus, 1758)	27	Class Cephalopoda	
<i>Epileton clarkiae</i> (Clark, 1852)	48	Subclass Coleoidea	
<i>Gari costulata</i> (Turton, 1821)	27	Order Sepioidea	
<i>Gari depressa</i> (Pennant, 1777)	5,9,27,35,52	<i>Sepia officinalis</i> Linnaeus, 1758	27,35,46
<i>Gari fervensis</i> (Gmelin, 1791)	27	<i>Sepiola atlantica</i> d'Orbigny, 1838	27,35
<i>Gari tellinella</i> (Lamarck, 1818)	5	Order Teuthoidea	
<i>Glossus humanus</i> (Linnaeus, 1758)	5,27	<i>Alloteuthis subulata</i> (Lamarck, 1798)	27
<i>Goodalia triangularis</i> (Montagu, 1803)	27,48,52	Order Octopoda	
<i>Irus irus</i> (Linnaeus, 1758)	27	<i>Eledone cirrhosa</i> (Lamarck, 1798)	27
<i>Laevicardium crassum</i> (Gmelin, 1791)	5,30,35,48	<i>Octopus vulgaris</i> Cuvier, 1797	27
<i>Lasaea adansoni</i> Gmelin, 1791	27		
<i>Lepton squamosum</i> (Montagu, 1803)	5		
<i>Loripes lacteus</i> (Linnaeus, 1758)	5,17,30,35,48,49,50,51	 Phylum Arthropoda	
<i>Lucinella divaricata</i> (Linnaeus, 1758)	5	Subphylum Crustacea	
<i>Lucinoma borealis</i> (Linnaeus, 1767)	C1,5,27,30,49,50	Superclass Maxillopoda	
<i>Lutraria angustior</i> Philippi, 1844	30,35,48	Class Copepoda	
<i>Lutraria lutaria</i> (Linnaeus, 1758)	27	Order Harpacticoida	
<i>Lutraria magna</i> (da Costa, 1778)	9,27	<i>Alteutha depressa</i> (Baird, 1836)	8
<i>Macoma balthica</i> (Linnaeus, 1758)	5,27	<i>Peltidium robustum</i> (Claus, 1889)	8
<i>Macra glauca</i> Von Born, 178	14,17,27,48,52	<i>Porcellidium fimbriatum</i> Claus, 1863	8
<i>Macra stultorum</i> (Linnaeus, 1758)	27	<i>Tisbe furcata</i> (Baird, 1836)	8
<i>Montacuta ferruginosa</i> (Montagu, 1808)	30	<i>Zaus spinatus</i> Goodsir, 1845	8
<i>Mysella bidentata</i> (Montagu, 1803)	5	Order Poecilostomatoida	
<i>Neolepton sulcatulum</i> (Jeffreys, 1859)	5	<i>Lichomolgus agilis</i> (Leidig, 1853)	8
<i>Paphia aurea</i> (Gmelin, 1791)	5,27,35,48	Order Rhynchomolgidae	
<i>Paphia rhomboides</i> (Pennant, 1777)	5,9,27,30,35,48,52	<i>Paranthessius anemoniae</i> Claus, 1889	8
<i>Parvicardium scabrum</i> (Philippi, 1844)	48,52	Order Siphonostomatoida	
<i>Parvicardium vromi</i> Von Arsten Menkhorst & Gittenberger, 1984	30	<i>Acontiophorus scutatus</i> (Brady et Robertson, 1873)	8
<i>Phaxas pellucidus</i> (Pennant, 1777)	27	Class Thecostraca	
<i>Ruditapes decussatus</i> (Linnaeus, 1758)	5,9,16,27,46,48	Subclass Cirripedia	
<i>Ruditapes philippinarum</i> (Adams et Reeve, 1850)	48	Order Sessilia	
<i>Scrobicularia plana</i> (da Costa, 1778)	5,27	<i>Balanus crenatus</i> Bruguière, 1789	22,49,52
<i>Solen marginatus</i> Pulteney, 1799	9,27,35	<i>Balanus improvisus</i> Darwin, 1854	49
<i>Spisula ovalis</i> (Linnaeus, 1758)	27,30,48,52	<i>Balanus perforatus</i> Bruguière, 1789	20,22,46,49
<i>Spisula subtruncata</i> (da Costa, 1778)	27,35	<i>Chtamalus stellatus</i> (Poli, 1795)	20,35,41
<i>Tellimya ferruginosa</i> (Montagu, 1808)	5	<i>Chtamalus montagui</i> Southward, 1976	53
<i>Tellina donacina</i> (Linnaeus, 1758)	5,27	<i>Elminius modestus</i> Darwin, 1854	52
<i>Tellina fabula</i> Gmelin, 1791	27	<i>Semibalanus balanoides</i> (Linnaeus, 1758)	20,35,52
<i>Tellina incarnata</i> (Linnaeus, 1758)	5,48	<i>Verruca stroemia</i> O.F. Müller, 1776	22
<i>Tellina pygmæus</i> Lovén, 1846	30	Order Rhizocephala	
<i>Tellina tenuis</i> da Costa, 1778	5,17,27,48	<i>Peltogaster</i> sp. Rathke, 1841	14
<i>Timoclea ovata</i> (Pennant, 1777)	27,30,35	Class Ostracoda	
<i>Venerupis senegalensis</i> (Gmelin, 1791)	5,27,35,48,49	Order Podocopida	
<i>Venus casina</i> Linnaeus, 1758	5,27	<i>Loxoconcha impressa</i> (Baird, 1850)	8
<i>Venus verrucosa</i> Linnaeus, 1758	5,9,16,27,30,35,48,49	Class Malacostraca	
Order Myoidea		Order Leptostraca	
<i>Barnea candida</i> (Linnaeus, 1758)	27,35		

<i>Nebalia bipes</i> (Fabricius, 1780)	48	<i>Apherusa ovalipes</i> Norman et Scott, 1906	30,48
<u>Order Cumacea</u>		<i>Arcitalitrus dorrieni</i> (Hunt, 1925)	52
<i>Bodotria pulchella</i> (Sars, 1878)	30,48,52	<i>Atylus falcatus</i> Metzger, 1871	52
<i>Cumopsis goodsir</i> (Van Beneden, 1861)	30,48,52	<i>Atylus guttatus</i> (Costa, 1851)	48
<i>Iphinoe trospinosa</i> (Goodsir, 1842)	48	<i>Atylus vedlomensis</i> (Bate & Westwood, 1862)	9,30
<u>Order Tanaidacea</u>		<i>Bathyporeia elegans</i> Watkin, 1937	30,52
<i>Apseudes latreillii</i> (Milne-Ewards, 1827)	23,30,35,44,48,52	<i>Bathyporeia guilliamsoniana</i> (Bate, 1857)	30,48
<i>Apseudes talpa</i> (Montagu, 1808)	30,44,48	<i>Bathyporeia sarsi</i> Watkin, 1937	30,48
<i>Heterotanais oerstedi</i> (Kröyer, 1841)	23	<i>Bathyporeia tenuipes</i> Meinert, 1877	30
<u>Order Mysida</u>		<i>Caprella acanthifera</i> Leach, 1814	23,48
<i>Paramysis arenosa</i> (G.O. Sars, 1877)	23,30,52	<i>Caprella penantis</i> Leach, 1814	12
<i>Paramysis nouveli</i> Labat, 1953	35,44	<i>Ceradocus semiserratus</i> (Bate, 1862)	30
<i>Praunus flexuosus</i> (Müller, 1776)	9,23,44	<i>Chaetogammarus</i> sp. Martynov, 1925	52
<i>Praunus neglectus</i> (G.O. Sars, 1869)	9,44	<i>Cheirocratus intermedius</i> Sars, 1894	30
<i>Siriella armata</i> (Milne-Edwards, 1836)	44	<i>Cheirocratus sundevallii</i> (Rathke, 1842)	23
<i>Siriella norvegica</i> G.O. Sars, 1869	9	<i>Corophium arenarium</i> Crawford, 1936	50,51
<u>Order Isopoda</u>		<i>Corophium bonelli</i> (Milne-Edwards, 1829)	23
<i>Ancyoniscus bonnieri</i> Caullery & Mesnil, 1920	44	<i>Corophium sextonae</i> Crawford, 1936	23
<i>Anilocra physodes</i> (Linnaeus, 1758)	44,46,48,49	<i>Corophium volutator</i> (Pallas, 1766)	23,48
<i>Anthura gracilis</i> (Montagu, 1808)	23	<i>Dexamine spinosa</i> (Montagu, 1813)	9,30,48,52
<i>Armadillidium album</i> Dollfus, 1887	47	<i>Echinogammarus stoevensis</i> (Reid, 1913)	30
<i>Bopyrina ocellata</i> (Czerniavski, 1869)	9,23	<i>Ericthonius punctatus</i> (Bate, 1857)	23,30
<i>Bopyrus squillarum</i> Latreille, 1802	9,23	<i>Gammarella fucicola</i> (Leach, 1814)	30,35,48
<i>Campecopea hirsuta</i> (Montagu, 1804)	41	<i>Gammarus locusta</i> (Linnaeus, 1758)	12,35,50
<i>Cirolana</i> sp. Leach, 1818	30	<i>Gammarus marinus</i> Leach, 1815	9
<i>Conilera cylindracea</i> (Montagu, 1804)	30,47	<i>Guernea coalita</i> (Norman, 1868)	30,52
<i>Cyathura carinata</i> (Kröyer, 1847)	23,48,50,51	<i>Harpinia crenulata</i> (Boeck, 1871)	48
<i>Cymodoce truncata</i> Leach, 1814	9,23,48	<i>Hyale prevosti</i> (Milne-Edwards 1830)	12
<i>Dynamene bidentatus</i> (Adams, 1800)	30,35,47	<i>Jassa pusilla</i> (Sars, 1894)	23
<i>Eurydice affinis</i> Hansen, 1905	41	<i>Lembos websteri</i> Bate, 1857	23
<i>Eurydice pulchra</i> Leach, 1815	23,30,41,48,52	<i>Leptocheirus hirsutimanus</i> (Bate, 1862)	30
<i>Gnathia maxillaris</i> (Montagu, 1804)	48	<i>Leptocheirus pectinatus</i> (Norman, 1869)	30,52
<i>Halophiloscia couchi</i> (Kinahan, 1858)	9,47	<i>Leucothoe incisa</i> Robertson, 1892	30,48,52
<i>Idotea emarginata</i> (Fabricius, 1793)	23,47	<i>Leucothoe lilljeborgi</i> Boeck, 1861	30
<i>Idotea balthica</i> (Pallas, 1772)	47	<i>Leucothoe procerata</i> Bate, 1857	30
<i>Idotea granulosa</i> (Rathke, 1842)	47	<i>Leucothoe spinicarpa</i> (Abildgaard, 1789)	9
<i>Idotea neglecta</i> G.O. Sars, 1897	17,23	<i>Listriella picta</i> Norman, 1889	52
<i>Idotea pelagica</i> Leach, 1815	9,47	<i>Lysianassa ceratina</i> (Walker, 1889)	23,30,48
<i>Jaera albifrons</i> Leach, 1814	23,47	<i>Lysianassa insperata</i> (Lincoln, 1979)	30,48,52
<i>Jaera forsmani</i> Bocquet, 1950	47	<i>Maera grossimana</i> (Montagu, 1808)	12,35
<i>Jaera praehirsuta</i> Forsman, 1949	47	<i>Maera tenuimana</i> (Bate, 1862)	30
<i>Lekanesphaera levii</i> (Argano et Ponticelli, 1981)	35,47,48,52	<i>Megamphopus cornutus</i> Norman, 1869	30
<i>Lekanesphaera rugicauda</i> (Leach, 1814)	23,47,48	<i>Melita palmata</i> (Montagu, 1804)	35
<i>Ligia oceanica</i> (Linnaeus 1758)	9,36	<i>Microdeutopus chelifer</i> (Bate, 1862)	48
<i>Miktoniscus patiencei</i> Vandel, 1946	47	<i>Microdeutopus stationis</i> Della Valle, 1893	30,48
<i>Paragnathia formica</i> (Hesse, 1864)	47	<i>Microdeutopus versicoloratus</i> (Bate, 1856)	30
<i>Pleurocrypta galateae</i> Hesse, 1865	12	<i>Monoculodes carinatus</i> (Bate, 1857)	12,30,48,52
<i>Sphaeroma serratum</i> (Fabricius, 1787)	47	<i>Orchestia gammarellus</i> (Pallas, 1766)	48
<u>Order Amphipoda</u>		<i>Orchestia mediterranea</i> Costa, 1853	35
<i>Abludomelita gladiosa</i> (Bate, 1862)	23	<i>Orchomene humilis</i> (Costa, 1853)	23
<i>Abludomelita obtusata</i> (Montagu, 1813)	30	<i>Pariambus typicus</i> Kröyer, 1847	48
<i>Ampelisca brevicornis</i> (Costa, 1853)	30,48,51	<i>Perioculodes longimanus</i> (Bate et Westwood, 1868)	30
<i>Ampelisca diadema</i> (Costa, 1853)	30,48	<i>Pherusa fucicola</i> Leach, 1814	23
<i>Ampelisca spinipes</i> Boeck, 1861	52	<i>Phtisica marina</i> Slabber, 1749	30
<i>Ampelisca tenuicornis</i> Liljeborg, 1855	30,48,51	<i>Podocerus variegatus</i> Leach, 1814	23
<i>Ampelisca typica</i> (Bate, 1856)	30	<i>Pontocrates altamarinus</i> (Bate et Westwood, 1862)	30
<i>Amphilochus spencebatei</i> (Stebbing, 1876)	30	<i>Pontocrates arenarius</i> (Bate, 1858)	30,48,52
<i>Ampithoe gammaroides</i> (Bate, 1856)	12	<i>Siphonoecetes kroyeranus</i> Bate, 1856	30,48,52
<i>Ampithoe ramondi</i> Audouin, 1825	23	<i>Stegocephaloidea christianiensis</i> Boeck, 1871	48
<i>Ampithoe rubricata</i> (Montagu, 1808)	12,30	<i>Sunamphito pelagica</i> (Milne-Edwards, 1829)	12,23,48
<i>Aora typica</i> Kröyer, 1845	12,30,48	<i>Talitrus saltator</i> (Montagu, 1808)	12
<i>Apherusa bispinosa</i> (Bate, 1857)	23,30	<i>Tryphosella sarsi</i> Bonnier, 1893	30
<i>Apherusa henneguyi</i> Chevreux & Fage, 1925	52	<i>Urothoe brevicornis</i> Bate, 1862	30,48
<i>Apherusa jurinei</i> (Milne-Edwards, 1830)	12	<i>Urothoe elegans</i> (Bate, 1857)	30

<i>Urothoe marina</i> (Bate, 1857)	23,48,52	<i>Portumnas latipes</i> (Pennant, 1777)	33
<i>Urothoe poseidonis</i> Reibish, 1905	30,48	<i>Processa edulis</i> (Risso, 1816)	30,32,33
Order Decapoda		<i>Thia scutellata</i> (Fabricius, 1793)	14,30,32,33,35,40,48,52
<i>Achaeus cranchi</i> Leach, 1817	29,33	<i>Thoralus cranchi</i> (Leach, 1817)	30,33
<i>Anapagurus hyndmanni</i> (Bell, 1845)	19,30,32,33,35,48	<i>Upogebia deltaura</i> (Leach, 1815)	14,30,33,45,C3
<i>Athanas nitescens</i> (Leach, 1814)	23,32,33,35	<i>Xantho</i> sp. Leach, 1814	27
<i>Axius stirhynchus</i> Leach, 1815	14,45,C3,34	Subphylum Chelicerata	
<i>Callianassa tyrrhena</i> (Petagna, 1792)	14(?),23(?),30,45,C3,32,33,34,48	Class Arachnida	
<i>Cancer pagurus</i> Linnaeus, 1758	17,29,32,33,35,46,48,49	Order Acarina	
<i>Carcinus maenas</i> (Linnaeus, 1758)	9,17,23,32,33,35,48,49,50,51,52	<i>Agave brevipalpus</i> Troussart, 1889	11
<i>Crangon crangon</i> (Linnaeus, 1758)	3,12,32,33,34	<i>Halacarus anomalus</i> Troussart, 1894	14
<i>Diogenes pugilator</i> (Roux, 1828)	30,33	<i>Halacarus chevreuxi</i> Troussart, 1889	11
<i>Dromia personata</i> (Linnaeus, 1758)	29	<i>Halacarus gracilipes</i> Troussart, 1889	11
<i>Ebalia cranchi</i> Leach, 1817	30	<i>Halacarus oculatus</i> Hodge, 1861	11
<i>Ebalia tumefacta</i> (Montagu, 1808)	32,33,40,48	<i>Halacarus rhodostigma</i> Gosse, 1855	11
<i>Eriphia verrucosa</i> (Forskål, 1775)	33	<i>Halacarus spinifer</i> Troussart, 1889	11
<i>Eualus occultus</i> (Lebour, 1935)	33	<i>Halacarus tabellio</i> Troussart, 1894	11
<i>Eurynome aspera</i> (Pennant, 1777)	37	<i>Leptognathus kervillei</i> Troussart, 1894	11
<i>Eurynome spinosa</i> (Hailstone, 1834)	32	<i>Lohmannella kervillei</i> Troussart, 1901	14
<i>Galathea intermedia</i> Lilljeborg, 1851	14	<i>Rhombognathus exophlus</i> Troussart, 1901	14
<i>Galathea nexa</i> Embleton, 1833	14	<i>Simonognathus liomerus</i> Troussart, 1901	14
<i>Galathea squamifera</i> Leach, 1814	12,32,33,49	Order Araneida	
<i>Galathea strigosa</i> (Linnaeus, 1767)	14,29,32,46,49	<i>Enoplognatha mordax</i> (Thorell, 1875)	48
<i>Hippolyte inermis</i> Leach, 1815	30,32,33	<i>Halorates reprobus</i> (O. P.-Cambridge, 1879)	10
<i>Hippolyte leptocerus</i> (Heller, 1863)	33	Class Pycnogonida	
<i>Hippolyte longirostris</i> (Czerniavski, 1868)	32	Order Pantopoda	
<i>Hippolyte varians</i> Leach, 1814	9,30,32,33,35	<i>Achelia echinata</i> Hodge, 1864	24
<i>Homarus gammarus</i> (Linnaeus, 1758)	3,9,29,32,33,46,49	<i>Ammothella longipes</i> (Hodge, 1864)	24
<i>Hyas coarctatus</i> Leach, 1815	33	<i>Endeis spinosa</i> (Montagu, 1808)	9,12,24
<i>Inachus dorsettensis</i> (Pennant, 1777)	33,37	<i>Nymphon gracile</i> Leach, 1814	24,35,44
<i>Inachus phalangium</i> (Fabricius, 1775)	32,33,46,49	<i>Pycnogonum littorale</i> (Strom, 1762)	44
<i>Liocarcinus corrugatus</i> (Pennant, 1777)	32	Subphylum Hexapoda	
<i>Liocarcinus depurator</i> (Linnaeus, 1758)	33	Class Insecta	
<i>Liocarcinus holsatus</i> (Fabricius, 1798)	30,32,33,48,52	Order Diptera	
<i>Liocarcinus navigator</i> (Herbst, 1794)	30,32,33,36,48	<i>Clunio marinus</i> Haliday, 1855	25
<i>Liocarcinus pusillus</i> (Leach, 1815)	32,33,35	Order Coleoptera	
<i>Liocarcinus vernalis</i> (Risso, 1826)	33	<i>Aegialia arenaria</i> (Fabricius, 1787)	36
<i>Macropodia deflexa</i> Forest, 1978	32,33,35	<i>Aepopsis robini</i> (Laboulbene, 1894)	39,48
<i>Macropodia rostrata</i> (Linnaeus, 1767)	9,30,32,33,36,46,48	<i>Agabus conspersus</i> (Marsham, 1802)	40
<i>Macropodia tenuirostris</i> (Leach, 1814)	9	<i>Aphodius prodromus</i> (Fabricius, 1792)	34
<i>Maja brachydactyla</i> Balss, 1921	17,29,32,33,46,49	<i>Aphodius rufipes</i> Linnaeus, 1758	38
<i>Necora puber</i> (Linnaeus, 1767)	29,32,33,35,36,46,48,49	<i>Bledius unicornis</i> (Germar, 1824)	C2
<i>Pagurus bernhardus</i> (Linnaeus, 1758)	12,30,32,33,48	<i>Broscus céphalotes</i> (Linnaeus, 1758)	39
<i>Pagurus cuanensis</i> Bell, 1845	32,33,35,48,52	<i>Cafius sericeus</i> Holme, 1836	9
<i>Pagurus prideaux</i> Leach, 1815	30,33	<i>Cafius xantholoma</i> Graenhorst, 1806	9
<i>Palaemon adspersus</i> Rathke, 1837	9,12	<i>Cillenus lateralis</i> Samouelle, 1819	48
<i>Palaemon elegans</i> Rathke, 1836	9,32,33,35	<i>Dicheirotrichus gustavii</i> Crotch, 1871	19
<i>Palaemon serratus</i> (Pennant, 1777)	3,9,32,33,46,48,49	<i>Enochrus bicolor</i> (Fabricius, 1792)	40
<i>Palaemonetes varians</i> (Leach, 1814)	29	<i>Enochrus halophilus</i> Bedel, 1878	40
<i>Palinurus elephas</i> (Fabricius, 1787)	9,14	<i>Heterocerus</i> spp. Fabricius, 1792	48
<i>Pandalina brevirostris</i> (Rathke, 1842)	37	<i>Polygon chalceus</i> (Marsham, 1802)	C2,39
<i>Periclimenes sagittifer</i> (Norman, 1861)	33,46,49		
<i>Philoceras fasciatus</i> (Risso, 1816)	9,29,30,32,33		
<i>Philoceras sculptus</i> (Bell, 1847)	33		
<i>Philocheras trispinosus</i> (Hailstone, 1834)	29,33		
<i>Pilumnus hirtellus</i> (Linnaeus, 1761)	9,17,23,32,33,35		
<i>Pinnotheres petunculi</i> Hesse, 1872	33		
<i>Pinnotheres pisum</i> (Linnaeus, 1767)	30		
<i>Pirimela denticulata</i> (Montagu, 1808)	14,32,33		
<i>Pisa nodipes</i> (Leach, 1815)	33		
<i>Pisa tetraodon</i> (Pennant, 1777)	12,32,33,49		
<i>Pisidia longicornis</i> (Linnaeus, 1767)	9,30,32,33,35,46,48		
<i>Pontophilus spinosus</i> (Leach, 1815)	30		
<i>Porcellana platycheles</i> (Pennant, 1777)	12,17,32,33,35,49		

 **Phylum Entoprocta**

Order Coloniales

Pedicellina cernua (Pallas, 1774) 13

 **Phylum Bryozoa**

Class Gymnolaemata

Order Cheiostomatida

Beania mirabilis Johnston, 1840 13

<i>Bugula calathus</i> Norman, 1864	46	<i>Glossobalanus sarniensis</i> (Koehler, 1886)	15
<i>Bugula turbinata</i> Alder, 1857	46,49		
<i>Carbacea carbacea</i> (Ellis & Solander, 1786)	4		
<i>Cellaria fistulosa</i> (Linnaeus, 1758)	49		
<i>Cellaria salicornioides</i> Lamouroux, 1816	4		
<i>Cellepora pumicosa</i> (Pallas, 1766)	46		
<i>Chartella papyracea</i> (Ellis & Solander, 1786)	46,49		
<i>Electra pilosa</i> (Linnaeus, 1767)	35,46,49		
<i>Electra verticillata</i> (Ellis & Solander, 1786)	4		
<i>Escharoides coccinea</i> (Abildgaard, 1806)	46		
<i>Flustra foliacea</i> (Linnaeus, 1758)	4,46,49		
<i>Membranipora membranacea</i> (Linnaeus, 1767)	46,49		
<i>Palmikenea skenei</i> (Ellis & Solander, 1786)	49		
<i>Pentapora fascialis</i> (Pallas, 1766)	46,49		
<i>Schizomavella auriculata</i> (Hassall, 1842)	49		
<i>Scruparia chelata</i> (Linnaeus, 1758)	13		
<i>Scrupocellaria scrupula</i> Busk, 1852	49		
<i>Scrupocellaria reptans</i> (Linnaeus, 1767)	13		
<u>Order Ctenostomatida</u>			
<i>Alcyonium diaphanum</i> (Hudson, 1778)	46,49		
Class Stenolaemata			
<u>Order Cyclostomatida</u>			
<i>Crisia denticulata</i> (Lamarck, 1766)	46		
<i>Disporella hispida</i> (Fleming, 1827)	22,46		
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 Phylum Echinodermata			
Class Asteroidea			
<u>Order Valvatida</u>			
<i>Anseropoda placenta</i> (Pennant, 1777)	49		
<i>Asterina gibbosa</i> (Pennant, 1777)	9,35,46,48,49		
<i>Asterina phylactyla</i> Emson & Crump, 1979	35		
Class Ophiuroidea			
<u>Order Ophiurida</u>			
<i>Amphipholis squamata</i> (delle Chiaje, 1828)	9,30,48,49,52		
<i>Ophiothrix fragilis</i> Abildgaard in O.F. Müller, 1789	46		
Subphylum Echinozoa			
Class Echinoidea			
Subclass Euechinoidea			
<u>Order Echinida</u>			
<i>Paracentrotus lividus</i> (Lamarck, 1816)	17		
<i>Psammechinus miliaris</i> (Müller, 1771)	17,49		
Class Holothuroidea			
Subclass Dendrochirotacea			
<u>Order Dendrochirotida</u>			
<i>Aslia lefevrei</i> (Barrois, 1882)	49		
<i>Cucumaria</i> sp. Blainville, 1829	46		
<i>Neopentadactyla mixta</i> (Ostergren, 1848) Deichmann, 1947	49		
<i>Ocnus lacteus</i> (Forbes & Goodsir, 1839)	49		
<i>Pawsonia saxicola</i> (Brady & Robertson, 1871)	17		
<i>Thyone</i> sp. Jaeger, 1833	52		
<u>Order Apodida</u>			
<i>Leptosynapta bergensis</i> (Östergreen, 1905)	3,48,52		
<i>Leptosynapta cruenta</i> (Cherbonnier, 1953)	3		
<i>Leptosynapta gallienii</i> (Herapath, 1865)	3		
<i>Leptosynapta inhaerens</i> (O.F. Müller, 1776)	3		
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 Phylum Hemichordata			
Class Enteropneusta			
<u>Order Enteropneusta</u>			

**Phylum Chordata****Subphylum Cephalochordata****Class Leptocardii***Branchiostoma (Amphioxus) lanceolatum* (Pallas, 1774) 52**Subphylum Tunicata****Class Ascidiacea****Suborder Stolidobranchia***Botrylloides leachii* (Savigny, 1816)

49

Order Enterogona*Aplidium albicans* (Milne-Edwards, 1840)

18

Aplidium argus (Milne-Edwards, 1840)

9,14,17,46

Aplidium caeruleum (Sluiter, 1906)

18

Aplidium densum (Giard, 1872)

17

Aplidium elegans (Giard, 1872)

14,17

Aplidium nordmanni (Milne-Edwards, 1840)

9,14,17

Aplidium pallidum (Verrill, 1871)

9,14,17,46,49

Aplidium proliferum (Milne-Edwards, 1840)

14,18

Aplidium punctum (Giard, 1873)

17,18

Aplidium turbinatum (Savigny, 1816)

17,18

Ascidia conchilega Moeller, 1841

18

Ascidia mentula Müller, 1776

17,46

Ascidia aspersa (Müller, 1776)

14,46

Ciona intestinalis (Linnaeus, 1758)

14,17,49

Clavelina lepadiformis Müller, 1776

9,14,17,49

Didemnum fulgens Milne-Edwards, 1840

18

Didemnum maculosum (Milne-Edwards, 1840)

14,17,18,46,49

Diplosoma listerianum (Milne-Edwards, 1840)

14,18

Diplosoma spongiforme Giard, 1872

14,46,49

Morcheilium argus (Milne Edwards)

49

Perophora listeri Wiegman, 1834

14,17,18

Polyclinum aurantium Milne-Edwards, 1840

14,46

Polysyncraton lacazei (Giard, 1872)

14,17,46,49

Order Pleurogona*Botryllus schlosseri* (Pallas, 1766)

9,14,17,22,46,49

Dendrodoa grossularia (Van Beneden, 1846)

17,18,35

Distomus variolosus Gaertner, 1774

17,18,49

Molgula oculata Forbes, 1848

14,17,18,46

Polycarpa mamillaris (Gaertner, 1774)

14

Stolonica socialis Hatmeyer, 1903

46,49

Styela clava Herdman, 1881

46,49

Styela rustiqua Linnaeus, 1767

49

Discussion

The high level of diversity (769 marine invertebrate species) is particularly remarkable when considering the relatively small size of the study area (5000 ha). Chausey thus hosts a significant portion of the total species diversity of the Normand-Breton Gulf and the English Channel. Considering only Polychaeta and Amphipoda (two well-studied taxonomic groups in the region) 146 polychaete species were found in Chausey, representing 55% of the 265 species of the Normand-Breton Gulf and 30% of the 493 species recorded in the English Channel (Dauvin et al., 2003), while the 82 amphipod species in Chausey represented 42% of the 194 species in the Normand-Breton

Gulf and 32% of the 255 species in the English Channel (Dauvin, 1999).

The high-level of species richness in Chausey is partly due to a rich naturalist history spanning 180 years. However, it also corresponds to particular environmental conditions. Chausey is located in the Normand-Breton Gulf, dominated by a complex and fragmented mosaic of benthic habitats (Retière, 1979). Additionally, it is situated in the Western part of the English Channel, which has greater spatial heterogeneity than the Eastern part. This location explains the presence of both Lusitanian and Boreal species. For example, according to the geographical-ecological distribution typology of Lincoln (1979), the Gammaridea reported in Chausey are essentially composed of temperate species (56%), but cold-temperate (21%), and warm-temperate species (18%) are also present (three Gammaridea species are not reported in the typology of Lincoln).

In addition to listing the most common and widespread species reported in Chausey, comments are included below for five different categories of species.

Rare and localized species on a regional scale

Parazoanthus anguicomus

The report of this species from Chausey is only the second record in the Normand-Breton Gulf, the first record being from the bay of Saint-Malo (Girard-Descatoire et al., 1997).

Clymenura tricirrata

Initially described in the Marseille area (France) as *Leiochone tricirrata* (see Bellan & Reys, 1967), this species was not reported by Dauvin et al. (2003) in the English Channel. It has been recently recorded in the Pertuis Charentais Bay (De Montaudouin & Sauriau, 2000) and, in 2007, at five stations in Normandy near Granville, the Havre de Lessay, Cherbourg, and the Cap Lévi (Olivier & Fournier, 2007).

Euclymene droebachiensis

Initially mentioned by Godet (2008) as *Euclymene* sp., upon reexamination, the specimens collected by this author correspond to *Euclymene droebachiensis* as described by Garwood (2007). This record has been confirmed by new specimens collected by Grant (in prep). According to Dauvin et al. (2003), this species has not been reported from the English Channel.

Schistomeringos caeca

This species, also not recorded by Dauvin et al. (2003) for

the English Channel, has been recently reported from the Eastern part, in Wimereux (France) and Belgium (Müller, 2004). The record of Godet (2008) is thus a new report for the Western part of the English Channel, and corresponds to two individuals collected in a *Lanice conchilega* bed from the Western side of the Archipelago in 2005.

Fimbriosthenelais zetlandica

The collection of this species in Chausey (as *Sthenelais papillosa*) surprised Hamon (1983), who mentioned that the species has only been previously reported in South Africa. However, according to Pettibone (1971), this species seems to have a large distribution in the North and South Atlantic, stretching from Norway, Skagerrak, Shetland Islands, Great Britain, and the Isle of Man, to Northwest Africa (Cape Verde Islands) and South Africa (False Bay) where it is found between 33 to 558 meters depth. The data from Hamon (1983) may constitute the first record for the English Channel, and the first report of the species in the intertidal zone.

Hesiospina similis

This species, collected in Chausey by Hamon (1983), was not reported by Dauvin et al. (2003) in the English Channel. Initially described in Japan, this species has been recorded in the Bay of Galway (O'Connor & Shin, 1983).

Corophium bonelli

The presence of this boreal species is of special interest, considering its scarcity and the retreat of its distribution in the Western English Channel (Lincoln, 1979). This retreat may correspond with the progression of the alien species, *Corophium sextonae*, and probably with the current global warming context.

Stegocephaloides christianiensis

The unique specimen collected by Godet (2008), in an intertidal *Lanice conchilega* bed of the archipelago, corresponds to the first report from the English Channel according to a recent checklist of amphipods (Dauvin, 1999). In France, this species has been reported from the southern Bay of Biscay (Bachelet et al., 2003), in the deep sea (Cap Ferret canyon, 346-1098 m) and on the continental shelf (Capbreton canyon, 1000 m). From the Arctic Ocean to the Western Mediterranean Sea, this species is known to be subtidal in distribution (depth range about 40-750 m; Lincoln, 1979).

Terrestrial species seldom reported in marine inventories

Halophiloscia couchi, Armadillidium album,

Miktoniscus patiencei

With the exception of *Ligia oceanica*, halophytic woodlice are rarely reported by marine biologists according to whom they are terrestrial species. Yet, *Halophiloscia couchi*, *Armadillidium album* and *Miktoniscus patienci* are true coastal species, restricted to salt-marshes and high tide marks along cliffs, or in shingle and boulder beaches (Hopkin, 1991; Livory, 2007). *Halphiloscia couchi* is common along European shores and on the main island of Chausey archipelago. *Armadillidium album* has recently been recorded in Chausey and in numerous parts of the coast of the Cotentin peninsula (Livory, 2007). *Miktoniscus patiencei* is found much less-frequently, with very scattered records, mainly distributed along the English Channel and the South Irish coasts. It is very rare on French shores, and has been only recently been reported on the main island of Chausey archipelago (Livory, 2007).

Halorates reprobus

The first report of this species in France is from Chausey (Gadeau de Kerville, 1894b). This spider is a strictly coastal species, inhabiting the zone from the high tide mark to the *Fucus serratus* belt.

Enoplognatha mordax

This spider has seldom been reported by benthic biologists, despite being common in similar intertidal areas of the region, such as at the Bay of the Mont-Saint-Michel (Pétillon et al., 2003). Three specimens of *E. mordax* were collected by Godet (2008) in *Lanice conchilega* beds of the Western part of the archipelago.

Invasive species

Some species, introduced in European waters during the 19th Century or at the beginning of the 20th Century, are now extensively established in the Normand-Breton Gulf and are present in the Chausey archipelago.

Haliplanella luciae

H. luciae was introduced to Europe, possibly from Japan, in the 19th Century probably via imported mussels and oysters, but also from transoceanic transport on ship hulls (Gollasch & Riemann-Zürneck, 1996). Today, although this species has been reported from several sites, long-term settlements have not been detected in European seas (Gollasch & Riemann-Zürneck, 1996).

Elminius modestus

This antipodean cirripede was first introduced to European waters in the 1950s, probably via ships and flying boats

during World War II (Bishop, 1947). It was reported in Brittany at the beginning of the 1950s (Gouletquer et al., 2002). In the Normand-Breton Gulf, larvae were abundant in plankton samples collected in 1952 (Franc, 1952).

Balanus improvisus

This species, native to the North-West Atlantic, was introduced to France in the 19th Century (Gouletquer et al., 2002). Today, it has a wide distribution in the Normand-Breton Gulf, where it was first reported in 1864 (Ansted & Latham, 1864).

Corophium sextonae

The origin of this species is unknown. According to Turquier (1965), Crawford suggested that this species is a non-native species for the English Channel, mainly because it is totally absent from early specimen collections. However, Turquier (1965) encountered the species in several sites along the coasts of Normandy and Brittany and concluded that its absence from the historic collection probably arose from its potential confusion with *C. acherusicum*.

In addition to these species, there are other exotic and potentially very invasive species, mainly introduced via shellfish culture.

Eriphia verrucosa

Noël et al. (1996) considered the unpublished record of Lubet in 1978 as dubious, because the spatial range of this species is much more southern. However, a specimen was also collected in Jersey in 1994 (D'Udekem d'Acoz, 1999). This last record reflects that even if there are no population settled in the Normand-Breton Gulf, isolated specimens can be found in this area, perhaps due to the exchanges between this area and the Bay of Biscay for shellfish farming.

Ruditapes philippinarum

This species, native to the Western Pacific Ocean, has been introduced to several European countries and has since been naturalized in Italy, France, and Britain (Gouletquer & Héral, 1997). In Chausey, this species is cultivated, and the archipelago is the main national production site (Toupoint et al., 2008).

Crassostrea gigas

Since the mid-1990s, this oyster species has become invasive on the intertidal reefs of northern Brittany, especially near Brest and the Bay of Saint-Brieuc. In the Bay of Mont-Saint-Michel, this species has become invasive on *Sabellaria alveolata* reefs (Dubois et al., 2006) and on the sea walls of Granville harbour.

Mytilus edulis

The native mussel species of the Normand-Breton Gulf is *Mytilus galloprovincialis*, whereas *M. edulis* is a cultivated species. In Chausey, small *M. edulis* beds form on intertidal sandflats adjacent to mussel concessions.

Crepidula fornicata

This well-known, North American native species was reported in France for the first time in 1949 in Brest and Hemanville (Gouletquer et al., 2002). It colonized the Normand-Breton Gulf in the 1970s (Retière, 1979; Dupouy & Latrouite, 1979) and now attains high-densities, especially in the bays of Saint-Brieuc, Mont Saint-Michel, Granville, and in the Chausey archipelago (Blanchard & Erhold, 1999).

Species whose identification or taxonomic position is problematic

Myriochele oculata

The specimens recently collected in Chausey (Godet, 2008; Nebout et al., 2008; Nebout & Olivier, in prep.) were first identified as *Myriochele heeri* Malmgren, 1867 with the fauna of Fauvel (1927). The reexamination of these specimens for the present study using the key proposed by Parapar (2003) resulted in their identification as *Galathowenia oculata* (referenced here as *Myriochele oculata*, following the European Register of Marine Fauna (Costello et al., 2001)). According to Martin (1989), the two species *M. oculata* and *M. heeri* have been repeatedly confused in the past.

Syllidae family

Syllids are small polychaetes of several millimetres, typically found in subtidal coarse sediments and rocky environments. Their identification is complex, mainly based on the presence of ventral cirri, the type of palps and chaetae. During the last century, benthologists classically used Fauvel's fauna (Fauvel, 1923) to identify syllids, but recently San Martin and other contributing authors totally revised this family. The Fauna Iberica Vol. 21 is dedicated to the family of *Syllidae* in areas of Spanish North Africa (San Martin, 2003) and we used this guide when identifying syllids. A great deal of confusion and revisions have been brought to light when compared with Fauvel (1923); we thus strongly recommend the use of Fauna Iberica fauna or recent scientific publications when examining *Syllidae*.

Ampharete baltica & *Ampharete acutifrons*

According to Dauvin et al. (2003), *Ampharete baltica* is the unique polychaete of this genus reported in the English

Channel. However, the specimens collected by Godet (2008) in Chausey have been identified as *A. acutifrons*, as described by Holthe (1986). Moreover, the identification of similar specimens collected in the Bay of the Mont-Saint-Michel as *A. acutifrons* has been confirmed by Eibye-Jacobsen (pers. comm.). The specimens collected in this bay and in Chausey were subadults (length < 40 mm), which has two consequences: the palae are not as thick and are clearly different from subsequent notochaete, as one would expect in adults, and the dorsal cirri on the dorsal edge of the last thoracic and all abdominal neuropodia are shorter than in adults (Eibye-Jacobsen, pers. comm.). Moreover, the presence of these dorsal cirri and the fact that the two groups of branchiae are well-separated from each other distinguish *A. acutifrons* from *A. baltica* (Eibye-Jacobsen, pers. comm.). According to us, the specimens collected in Chausey by Hamon (1983) and identified as *A. baltica* should be re-examined.

Spisula solidia vs *Spisula ovalis*

On the CLEMAM website which is considered as a reference for valid taxonomic names of molluscs, only *Spisula solidia* (L., 1758) is accepted. However, a note indicates that *Spisula ovalis* (Sowerby, 1817) is suggested as being distinct based on morphometric evidence (Glémarec, 1968). Our *Spisula* individuals may be related to *S. solidia* when using the fauna of Tebble (1966), but the shell is more elongated (lower H/L ratio) than in the description. When considering the description of *Spisula ovalis* by Glémarec (1968), we undoubtedly concluded that our individuals belong to this latter species. To our knowledge, no works have focused on genetical differences between these two species. Without further research on *Spisula* phylogeny, we reasonably consider that the specimens collected in Chausey belong to the species *Spisula ovalis*.

Leptosynapta spp.

The identification of the species of this genus by several authors has been fraught with difficulties. An example can be seen in the analyses of specimens collected in Chausey by De Quatrefages (1854), initially described as *Leptosynapta duvernea* sp. nov. (= *Leptosynapta inhaerens* Müller, 1776). Allain (1973) re-examined these data and concluded that these specimens belonged to four different species: *L. bergensis*, *L. cruenta*, *L. gallienii*, *L. inhaerens*.

Species for which additional data are required

Halichondria spp.

The identification by visual observation of *Halichondria* to the species level has previously been rejected and only

considered as an additional record of *Halichondria* sp. (Ecosub, 2006). Confusions between *H. panicea* and *H. bowerbanki*, the later being the only species positively identified in the Rance basin and the surrounding areas of Saint-Malo (C. Lévi, pers. com.), are possible. Additional sampling would be necessary to perform microscopic examinations of the collected specimens in order to confirm the species.

Caryophyllia inornata (Duncan, 1878)

Identification by visual observation of *C. inornata* by Ecosub (2006) has been rejected, and not integrated in this list. It is very similar to the much more common *C. smithii*, which has also been reported in Chausey. Young specimens of *C. smithii* are highly-variable in form (Zibrowius, 1976), and may be virtually indistinguishable from *C. inornata* (Manuel, 1983). Consequently, visual identification by diving cannot be accepted, and additional data are required to confirm the potential presence of *C. inornata* in Chausey.

Trapania maculata Haefelfinger, 1960

The identification of *T. maculata* by Ecosub (2006) to the species level has been rejected and only taken into account to a genus level. *T. maculata* is a rare Mediterranean dorid nudibranch, first recorded in the UK at Portland in May 1974 (Brown & Picton, 1976). The data in the English Channel could be due to confusion with *T. pallida* (DORIS, 2008). Additional data are therefore still required to confirm the report from Chausey.

Antalis entalis

The existing data on this species in the Normand-Breton Gulf are relative to dead specimens (shells), and thus with some potential misidentifications (Marshall, 1914). The data of Locard (1886) and Lubet (1968) should therefore be verified.

Chtamalus stellatus & *Chtamalus montagui*

According to Southward (1976), only *C. montagui* should be found in the archipelago. Indeed, this was the only species found during a personal investigation in 2009 on the 'Grande Ile'. Additional data are still required to validate the reports of *C. stellatus* in the archipelago.

Callianassa subterranea (Montagu, 1808) & *Callianassa tyrrhenica*

While *C. subterranea* was reported by Fauvel (1905) and Bertrand (1940) in Chausey, they did not mention *C. tyrrhenica*, the only species of the genus found by recent authors in Chausey and the Normand-Breton Gulf. A

misidentification is most likely responsible for this discrepancy. Even if *C. subterranea* has been reported in the nearby region of Jersey (Ngoc-Hô, 2003), we rejected the mentions of the species in Chausey.

Liocarcinus zariquieyi (Gordon, 1968)

As with Noël et al. (1996), D'Udekem d'Acoz (1999) contests the record of Hamon (1983), and both these authors consider its listing as a potential confusion with *L. pusillus*. There are no other available data in Chausey, and the record of this species in Chausey has been rejected and not integrated in our data.

Macropodia parva van Noort & Adema, 1985

D'Udekem d'Acoz (1999) wondered about the validity of the original description of *M. parva* and its distinction from *M. rostrata*. Because of this problem we considered the observations *M. parva* of Livory (1995 & 1997) as *M. rostrata*, which is very common in Chausey.

Xantho poressa (Olivi, 1792)

This species, reported in Chausey archipelago by Lubet (1968), is mainly a Mediterranean species with a very restricted Atlantic distribution (D'Udekem d'Acoz, 1999). Noël et al. (1996) attribute Lubet's record to *Xantho incisus*, which is fairly common in the Normand-Breton Gulf. The two species are very similar (D'Udekem d'Acoz, 1999), and thus we reported the record of Lubet (1968) as *Xantho* sp.

Thracia pubescens (Pulteney, 1799)

The only other data relative to this species in the Normand-Breton Gulf are early testimonies from the end of the 19th Century in Guernsey (Duncan, 1841 *In Chambers*, 2008). Jeffreys (1865) and Locard (1886) did not take into account this record. In Chausey, additional data would be welcome: whereas adults are unmistakable, young specimens are very similar to *T. papyracea*, a species present in Chausey.

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