

ALIEN SPECIES IN ITALIAN SEAS

by the Allochthonous Species Group

(updated in July 2012)

The SIBM Allochthonous Species Group (ASG) was set up in 1999, following the proposal of the pro tempore President Professor Giulio Relini (University of Genoa), who over the years has assiduously followed and sustained the group's work. About 100 researchers from several Universities and Research Centers have taken part to various extents.

The group has been responsible for updating the list of reported alien species introduced into Italian marine waters.

“Alien” species are considered those species found outside their native distribution range and out of their natural possible expansion range, whose presence in a given region is due to intentional or non-intentional introduction mediated by humans. Therefore, species introduced by various vectors (navigation, aquaculture, aquariology, artificial channels, etc.) fall under this definition. It includes species coming from the Red Sea through the Suez Canal (lessepsian species), whereas the Atlantic species, which have arrived autonomously through Gibraltar, are excluded.

The period taken into consideration extends from the end of the second world war (1945) to 2012.

Since 2000, the SIBM Allochthonous Species Group has contributed to the compiling of a national report for Italy every year (prepared by the coordinator Professor Anna Occhipinti-Ambrogi of the University of Pavia), which has been presented at the annual meetings of the ICES (International Commission for the Exploration of the Sea) Working Group on Introductions and Transfer of Marine Organisms (WGITMO) (<http://www.ices.dk/workinggroups/ViewWorkingGroup.aspx?ID=33>).

A sub-group of specialists of various taxa carried out a careful revision of the list of alien species included in the national reports.

The taxa considered so far are: Macrophyta, Porifera, Ctenophora, Cnidaria (Hydrozoa, Scyphozoa, Anthozoa), Annelida Polychaeta, Mollusca (Bivalvia, Gastropoda, Cephalopoda), Crustacea (Copepoda, Peracarida, Decapoda), Picnogonida, Bryozoa, Tunicata, Vertebrata (Chondrichthyes, Osteichthyes).

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Researchers indicated with an asterisk have contributed to the critical revision of data and to compile the list presented below, which is updated to 2012. Further elaboration and comments are available in the paper by Occhipinti-Ambrogi A., Marchini A., Cantone G., Castelli A., Chimenz C., Cormaci M., Froglià C., Furnari G., Gambi M.C., Giaccone G., Giangrande A., Gravili C., Mastrototaro F., Mazziotti C., Orsi-Relini L., Piraino S. (2011) - Alien species along the Italian coasts: an overview. *Biological Invasions*, **13**: 215-237. The article is based on data updated to the year 2009.

The following list is updated to the year 2012.

Listo f alien species in the Italian seas

Macrophyta

1. *Acrothamnion preissii* (Sonder) E.M. Wollaston
2. *Agardhiella subulata* (C. Agardh) Kraft & M.J. Wynne
3. *Aglaothamnion feldmanniae* Halos
4. *Antithamnion amphigeneum* A. Millar
5. *Antithamnion hubbsii* E.Y. Dawson
6. *Apoglossum gregarium* (E.Y. Dawson) M.J. Wynne
7. *Asparagopsis armata* Harvey
8. *Bonnemaisonia hamifera* Hariot
9. *Botryocladia madagascariensis* Feldmann-Mazoyer
10. *Caulerpa racemosa* (Forsskål) J. Agardh var. *cylindracea* (Sonder) Verlaque, Huisman & Boudouresque
11. *Caulerpa taxifolia* (Vahl) C. Agardh
12. *Ceramium strobiliforme* G.W. Lawson & D.M. John
13. *Chondria polyrhiza* Collins & Hervey
14. *Chondria pygmaea* Garbary & Vandermeulen
15. *Codium fragile* (Suringar) Hariot ssp. *fragile*
16. *Gracilaria vermiculophylla* (Ohmi) Papenfuss
17. *Grateloupia turuturu* Yamada
18. *Halophila stipulacea* (Forsskål) Ascherson
19. *Hypnea cornuta* (Kützting) J. Agardh
20. *Hypnea flexicaulis* Yamagishi and Masuda
21. *Hypnea spinella* (C. Agardh) Kützting
22. *Hypnea valentiae* (Turner) Montagne
23. *Leathesia marina* (Lyngbye) Decaisne
24. *Lomentaria hakodatensis* Yendo
25. *Lophocladia lallemandii* (Montagne) F. Schmitz
26. *Neosiphonia harveyi* (J.W. Bailey) M.S. Kim, H.G. Choi, Guiry & G.W. Saunders
27. *Padina boergesenii* Allender & Kraft
28. *Palisada maris-rubri* (K.W. Nam et Saito) K.W. Nam
29. *Plocamium secundatum* (Kützting) Kützting
30. *Polysiphonia morrowii* Harvey
31. *Sargassum muticum* (Yendo) Fensholt
32. *Scytosiphon dotyi* M.J. Wynne
33. *Symphyocladia marchantioides* (Harvey) Falkenberg
34. *Undaria pinnatifida* (Harvey) Suringar
35. *Womersleyella setacea* (Hollenberg) R.E. Norris

Porifera

1. *Paraleucilla magna* Klatau, Monteiro & Borojevic, 2004

Ctenophora

1. *Beroe ovata* sensu Mayer, 1912
2. *Mnemiopsis leidyi* A. Agassiz, 1865

Hydrozoa

1. *Amphogona pusilla* Hartlaub, 1909
2. *Clytia hummelincki* (Leloup, 1935)
3. *Clytia linearis* (Thornely, 1900)
4. *Clytia mccrady* (Brooks, 1888)
5. *Cirrholovenia tetranema* Kramp, 1959
6. *Cordylophora caspia* (Pallas, 1771)
7. *Eudendrium carneum* Clarke, 1882
8. *Eudendrium merulum* Watson, 1985
9. *Garveia franciscana* (Torrey, 1902)
10. *Gonionemus vertens* A. Agassiz, 1862

11. *Moerisia inkermanica* Paltschikowa-Ostroumova, 1925
12. *Scolionema suvaense* (A. Agassiz & Mayer, 1899)

Scyphozoa

1. *Phyllorhiza punctata* von Lendenfeld, 1884

Anthozoa

1. *Diadumene cincta* Stephenson, 1925
2. *Oculina patagonica* De Angelis, 1908

Polychaeta

1. *Amphicorina pectinata* (Banse, 1957)
2. *Branchiomma luctuosum* (Grube, 1869)
3. *Desdemona ornata* Banse, 1957
4. *Epidiopatra hupferiana hupferiana* Augener, 1918
5. *Epidiopatra hupferiana monroi* Day, 1957
6. *Fabriciella qhardaqa* Banse, 1959
7. *Harmothoe imbricata* (L., 1767)
8. *Hesionura serrata* (Hartmann-Schroeder, 1960)
9. *Hyboscolex longiseta* (Schmarda, 1861)
10. *Isolda pulchella* Müller, 1858
11. *Janua (Dexiospira) marioni* Caullery & Mesnil, 1897
12. *Leiochrides australis* Augener, 1914
13. *Linopherus canariensis* Langerhans, 1881
14. *Loimia medusa* Savigny, 1818
15. *Longibranchium atlanticum* (Day, 1973)
16. *Lumbrinerides acutiformis* (Gallardo, 1967)
17. *Lumbrinerides neogesae* Miura, 1980
18. *Lysidice collaris* Grube, 1870
19. *Mediomastus capensis* Day, 1961
20. *Megalomma claparedei* Gravier, 1908
21. *Neanthes agulhana* Day, 1963
22. *Neopseudocapitella brasiliensis* Rullier & Amoureux, 1979
23. *Notomastus aberans* Day, 1963
24. *Notopygos crinita* Grube, 1855
25. *Novafabricia infratorquata* (Fithzugh, 1983)
26. *Ophryotrocha diadema* Åkesson, 1976
27. *Ophryotrocha japonica* nomen nudum
28. *Pileolaria berkeleyana* (Rioja, 1942)
29. *Pista unibranchia* Day, 1963
30. *Platynereis australis* (Schmarda, 1861)
31. *Polydora colonia* Moore, 1907
32. *Prionospio pygmaea* Hartman, 1955
33. *Protodorvillea egena* (Ehlers, 1913)
34. *Streblosoma comatus* (Grube, 1856)
35. *Syllis hyllebergi* Licher, 1999

Gastropoda

1. *Anteaeolidiella foulisi* (Bergh, 1888)
2. *Aplysia dactylomela* Rang, 1828
3. *Aplysia parvula* Guilding in Mørch, 1863
4. *Bursatella leachii* De Blainville, 1817
5. *Cerithium scabridum* Philippi, 1848
6. *Chromodoris quadricolor* (Rueppell & Leuckart, 1828)
7. *Crepidula fornicata* (L., 1758)
8. *Cuthona perca* (Marcus, 1958)
9. *Erosaria turdus* (Lamarck, 1810)

10. *Haminoea cyanomarginata* Heller & Thompson T., 1983
11. *Haminoea japonica* Gibson & Chia, 1989
12. *Littorina littorea* (L., 1758)
13. *Melibe viridis* (Kelaart, 1858)
14. *Nucella lapillus* (L., 1758)
15. *Polycera hedgpethi* Marcus Er., 1964
16. *Polycerella emertoni* Verrill, 1881
17. *Rapana venosa* (Valenciennes, 1846)
18. *Syphonota geographica* (Adams & Reeve, 1850)
19. *Thais lacera* (Born, 1778)

Bivalvia

1. *Anadara inaequalis* (Bruguière, 1789)
2. *Anadara transversa* (Say, 1822)
3. *Arcuatula senhousia* (Benson in Cantor, 1842)
4. *Brachidontes pharaonis* (Fisher, 1870)
5. *Callista florida* (Lamarck, 1818)
6. *Crassostrea gigas* (Thunberg, 1793)
7. *Fulvia fragilis* (Forskål in Niebuhr, 1775)
8. *Limnoperna securis* (Lamarck, 1819)
9. *Mercenaria mercenaria* L., 1758
10. *Mya arenaria* L., 1758
11. *Perna perna* (L., 1758)
12. *Pinctada radiata* (Leach, 1814)
13. *Saccostrea commercialis* (Iredale & Roughley, 1933)
14. *Ruditapes philippinarum* (Adams & Reeve, 1850)
15. *Theora lubrica* Gould, 1861

Cephalopoda

1. *Tremoctopus gracilis* (Eydoux/Souleyet, 1852)

Copepoda

1. *Acartia (Acanthacartia) tonsa* Dana, 1849
2. *Metacalanus acutioperculum* Ohtsuka, 1984
3. *Paracartia grani* Sars, 1904

Peracarida

1. *Caprella scaura* Templeton, 1936
2. *Elasmopus pecteniscrus* (Bate, 1862)
3. *Paracerceis sculpta* (Holmes, 1904)
4. *Paradella diana* (Menzies, 1962)

Decapoda

1. *Actumnus globulus* Heller, 1861
2. *Calappa pelii* Herklots, 1851
3. *Callinectes danae* Smith, 1869
4. *Callinectes sapidus* Rathbun, 1896
5. *Charybdis japonica* (A. Milne-Edwards, 1861)
6. *Charybdis lucifera* (Fabricius 1798)
7. *Dyspanopeus sayi* (Smith, 1869)
8. *Eriocheir sinensis* H. Milne Edwards, 1853
9. *Glabropilumnus laevis* (Dana, 1852)
10. *Herbstia nitida* Manning & Holthuis, 1981
11. *Marsupenaeus japonicus* (Bate, 1888)
12. *Menaethius monoceros* (Latreille, 1825)
13. *Paralithoides camtschaticus* (Tilesius, 1815)

14. *Percnon gibbesi* (H. Milne Edwards, 1853)
15. *Portunus (Portunus) pelagicus* (L., 1758)
16. *Rhithropanopeus harrisi* (Gould, 1841)
17. *Scyllarus caparti* Holthuis, 1952
18. *Sternodromia spinirostris* (Mires, 1881)
19. *Thalamita gloriensis* Crosnier, 1962

Picnogonida

1. *Ammothea hilgendorfi* (Böhm, 1879)
2. *Anoplodactylus californicus* (Hall, 1912)

Bryozoa

1. *Arachnoidea protecta* (Harmer, 1915)
2. *Celleporella carolinensis* (Ryland, 1979)
3. *Crepidacantha poissonii* (Audouin, 1826)
4. *Electra tenella* (Hincks, 1880)
5. *Pherusella brevituba* Soule, 1951
6. *Tricellaria inopinata* d'Hondt & Occhipinti Ambrogi, 1985
7. *Bugula serrata* (Lamarck, 1816)

Tunicata

1. *Botrylloides violaceus* Oka, 1927
2. *Distaplia bermudensis* Van Name, 1902
3. *Microcosmus squamiger* (reported as *M. exasperatus* by Monniot, 1981)
4. *Polyandrocarpa zorritensis* (Van Name, 1931)

Osteichthyes

1. *Abudefduf vaigiensis* (Quoy & Gaimard, 1825)
2. *Elates ransonnettii* (Steindachner, 1876)
3. *Epinephelus coioides* (Hamilton, 1822)
4. *Etrumeus teres* (Dekay, 1842)
5. *Fistularia commersonii* Rüppel, 1838
6. *Pinguipes brasiliensis* Cuvier & Valenciennes, 1829
7. *Pomadasys stridens* (Forsskål, 1875)
8. *Siganus luridus* (Rüppel, 1829)
9. *Stephanolepis diaspros* Fraser-Brunner, 1940
10. *Synagrops japonicus* (Doderlein, 1883)

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