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Errata to the Review Article (Medit. Mar. Sci. 11/2, 2010, 381-493): "Alien species in the Mediterranean Sea by 2010. A contribution to the application of European Union's Marine Strategy Framework Directive (MSFD). Part I. Spatial distribution"

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Errata to the Review Article (*Medit. Mar. Sci.* 11/2, 2010, 381-493):

Alien species in the Mediterranean Sea by 2010. A contribution to the application of European Union's Marine Strategy Framework Directive (MSFD).

Part I. Spatial distribution

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The authors regret that Table 2 of the article (ZENETOS *et al.*, 2011) contained some errors. The errors pertain to nomen-

clature changes and the distribution/establishment success of alien species in the Mediterranean MSFD areas.

Nomenclature changes

The probable synonymy between *Ulva australis* and *Ulva pertusa* is consistent with their morphological similarities and it was suggested that *Ulva australis* is the valid name for the non-native green macroalga (COUCEIRO *et al.*, 2011).

Following HUBER (2010), *Brachidontes ustulatus* (Lamarck, 1819) is the valid name for *Brachidontes variabilis* (Krauss, 1848) = *Brachidontes pharaonis*.

Xenostrobus Wilson, 1967 has been put into synonymy of *Limnoperna* Rochebrune, 1882, so the species should be cited as *Limnoperna securis* (Lamarck, 1818), not *Xenostrobus securis*.

Musculista senhousia and *Musculista perfragilis* have been transferred to the genus

Arcuatula Jousseume in Lamy, 1919. The type species of *Arcuatula* is *A. arcuatula* (Hanley, 1843) which is hardly distinct from *senhousia*, and the name obviously has priority over *Musculista* YAMAMOTO & HABE, 1958.

Finally, *Hamimaera hamigera* (Haswell, 1879) and not *Linguimaera caesaris* Krapp-Schickel, 2003 is the valid name for *Maera hamigera* Haswell, 1880 (WoRMS).

The establishment success along with the corrected distribution of the species, as derived from sources that came later into our attention, is as follows. Three species namely *Hemimysis anomala*, *Neomysis integer* and *Cristapseudes omercooperi* are missing from Table 2, due to a regrettable lapsus.

Table 2

List of species with origin and establishment success in all Mediterranean MSFD areas (WMED=Western Mediterranean, CMED=Central Mediterranean, ADRIA=Adriatic Sea, EMED=Eastern Mediterranean). Establishment success abbreviated as est=established, cas=casual, cry=cryptogenic, que=questionable, abs=absent, +additions to Table 2.

Species	Author	Origin	WMED	CMED	ADRIA	EMED	source
Polychaeta							
<i>Eunice floridana</i>	(Pourtalès, 1867)	W Atlantic		ques	cas		1
<i>Janua (Dexiospira) steueri</i>	(Sterzinger, 1909)	Indo-Pacific				est	2
<i>Pherusa parmata</i>	(Grube, 1878)	Indo-Pacific				est	2
<i>Pherusa saldanha</i>	Day, 1961	Indian				est	2
<i>Prionospio (Minuspio) pulchra</i>	Imajima, 1990	Atlantic/Pacific		est		est	3
<i>Prospheerosyllis longipapillata</i>	(Hartmann-Schröder, 1979)	SW Pacific				cas	M.E. Cinar
<i>Sigambra parva</i>	(Day, 1963)	Indian	cas			que	4
Crustacea/Decapoda							
<i>Gonioinfradens paucidentata</i>	(A. Milne Edwards, 1861)	Indo-Pacific				est	M.Corsini-Foka
Crustacea/Mysidae							
+ <i>Hemimysis anomala</i>	G. O. Sars, 1907	Ponto-Caspian	est				5
+ <i>Neomysis integer</i>	Leach, 1814	NE Atlantic				unknown	6

Continued

Table 2 Continued

Species	Author	Origin	WMED	CMED	ADRIA	EMED	source
Mollusca/Gastropoda							
<i>Chrysallida fischeri</i>	Hornung & Mermod, 1925)	Red Sea			abs	est	8
<i>Ostostomia lorioli</i>	(Hornung & Mermod, 1924)	Red Sea				est	A. Zenetos
Fish							
<i>Hemiramphus far</i>	(Forssk ål, 1775)	Indo-Pacific	+cas	est	cas	est	9
<i>Lagocephalus spadiceus</i>	(Richardson, 1844)	Indo-Pacific	+cas			est	9
<i>Siganus luridus</i>	(Rüppell, 1829)	Indian Ocean	est	est	+cas	est	10
<i>Syngnathus rostellatus</i>	Nilsson, 1855	N Atlantic	cas				11
<i>Chirocentrus dorab</i>	Forssk ål, 1775)	Indo-Pacific				quest	12
<i>Siganus javus</i>	(Linnaeus, 1766)	Indo-Pacific				quest	13
<i>Isurus paucus</i>	Guitart Manday, 1966	Circumtropical	cry				

1: SORESI *et al.*, 2004; 2: CINAR, 2009; 3: DAGLI & CINAR, 2011; 4: ERGEN, 1976; 5: WITTMANN & ARIANI, 2009; 6: MUNILLA & SAN VICENTE, 2005; 7: BAMBER *et al.*, 2009; 8: MAZZIOTTI *et al.*, 2005; 9: CHARFI-CHEIKHROUHA, 2004; 10: POLONIATO *et al.*, 2010; 11: HABLUTZEL & WILSON, 2011; 12: OREK, 2008; 13: IBRAHIM *et al.*, 2010.

Notes:

Chrysallida fischeri was first recorded from the Adriatic Sea (MAZZIOTTI *et al.*, 2002) and then described as *Turbonilla flavianoii* (MAZZIOTTI *et al.*, 2005).

Syngnathus rostellatus is present only in the WMED (the only valid record was given by REINA-HERVÁS *et al.*, 1981).

The identification of *Chirocentrus dorab* (OREK, 2008) was based on eggs and larvae and therefore it can be considered as questionable.

The record of *Siganus javus* can be considered doubtful, as the abstract of IBRAHIM *et al.* (2010) was not peer reviewed.

Isurus paucus is considered cryptogenic. In the past it could have been misidentified as *Isurus oxyrinchus* (HEMIDA & CAPAPE, 2008).

The records of *Syngnathus rostellatus* along the southern Turkey and the Gulf of Tunis appear to be questionable, see HABLUTZEL & WILSON (2011).

Moreover, one foram species (*Amphistegina lessonii*), one polychaete species (*Hydroides steinitzi*) and two fish species (*Kyphosus sectator* and *Dasyatis marmorata*) should be removed from the list of aliens.

- According to A. Almogi-Labin (pers. comm) the convention now is that *Amphistegina lessonii* is a native species in the Mediterranean Sea.
- *Hydroides steinitzi* is absent in the EMED (BEN ELIAHU & TEN HOVE, 2011). Having been recorded only from ship biofouling and not from an actual Mediterranean habitat, “ship-transported” seems a more appropriate designation than “casual” (BEN ELIAHU & TEN HOVE, 2011).
- With all probabilities *Dasyatis marmorata* is a native species. In the past, *D. marmorata* could have been confused and misidentified with *D. pastinacea* (GOLANI & CAPAPÉ, 2004; Golani personal comm.).

- *Kyphosus sectator* can be considered as native species. The first individuals were observed during the period 1846–1903 (ARIOLA, 1904) and afterward it was listed in the Italian and Mediterranean fish fauna (TORTONESE, 1986). ORSI-RELINI (2010)

and D. Golani (personal comm.) agree on that.

Table 3 contained a few typographical errors. They are critical since they involve the dispersion of four invasive species in MSFD areas. The correct distribution is as follows:

Table 3
Distribution of invasive (++) or potentially invasive alien species (+) in the Mediterranean MSFD areas.

Taxon	Species	WMED	CMED	ADRIA	EMED
Mollusca/Gastropoda	<i>Aplysia dactylomela</i>		++	+	++
Mollusca/Gastropoda	<i>Cellana rota</i>		+	+	++
Mollusca/Gastropoda	<i>Conomurex persicus</i>		+	+	++
Fish	<i>Siganus luridus</i>	+	++	+	++

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