Additional file 2. Synthesis of information of the 148 paper retained after the 3-step process (excluding the 12 reviews). Geographical coordinates are not reported for the 26 finally excluded papers.

Reference	Study location	Latitude	Longitude	Study type	Study approach	Non-native species	Design	Mean	SE/SD/CI	Design - replication	Design - confounding	Execution - sample independence	Execution-treatment	Execution - randomisation	Confounding variables
Finally retained papers															
Ambrose & Nelson 1982 - Botanica Marina 25: 265-267	Santa Catalina Island, California, USA	33° 27' N	118° 29' W	field	experimental	*Sargassum muticum*	invaded vs invader removal	yes	yes	replicated	low probability	probably independent	yes	random	Not present
Balata et al. 2004 - Marine Ecology 25: 1–13	Tuscany, Italy	43°28'24"N	10°19'42"E	field	observational	*Caulerpa racemosa & taxifolia*	CI: 3 conditions (C. racemosa invaded, C. taxifolia invaded areas, without caulerpa)	yes	yes	replicated	low probability	probably independent	no treatment	random	Not present
Baldacconi & Corriero 2009 - Marine Ecology-an Evolutionary Perspective 30: 337-345	Torre Ovo (Taranto), Italy	40°17'36" N	17°30'21" E	field	observational	*Caulerpa racemosa*	BA	yes	yes	replicated	low probability	probably independent	no treatment	random	Not present
Ballesteros et al. 2007 - Botanica Marina 50: 8-13	Balearic Island, Spain	39° 43.5' N	2° 24.1' E	field	observational	*Lophocladia lallemandii*	invaded - control rhizomes	yes	yes	replicated	low probability	probably independent	no treatment	random	Not present
Bartoli & Boudouresque 1997 - Marine Ecology-Progress Series 154: 253-260	between Nizza and Cap Martin, France	43°42' N (Nizza); 43°45'46" N (Cap Martin)	7°15' E (Nizza); 7°27'47" E (Cap Martin)	field	observational	*Caulerpa taxifolia*	CI	yes	yes	replicated	low probability	probably independent	no treatment	random	Not present
Boudoresque et al. 1996 - Aquatic Botany 53: 245-250	laboratory	43°45'46" N	7°27'47" E	lab	experimental	*Caulerpa taxifolia*	Aquaria with and without the non-native seaweed	yes	no	replicated	low probability	probably independent	yes	random	Not present
Box et al. 2008 - Comparative Biochemistry and Physiology C 149: 456-460	Mallorca, Spain	39°34'48.09" N	2°20'54.57"	field	observational	*Lophocladia lallemandii*	individuals colonized by the invader vs individuals not colonized by the invader	yes	yes	replicated	low probability	probably independent	no treatment	random	Not present
Box et al. 2009 - Journal of Experimental Marine Biology and Ecology 380: 11–23	Mallorca, Spain	1) 39°29'55" N; 2) 39°27'12" N; 3) 39°34'42" N; 4) 39°47'22" N	1) 2°42'34" E; 2) 2°32'26" E; 3) 3°24'40" E; 4) 3°18'35" E	field	observational	*Caulerpa racemosa*	CI	yes	yes	replicated	low probability	probably independent	no treatment	random	Not present
Britton-Simmons 2004 - Marine Ecology Progress Series 277: 61-78	Colin's Cove and Point George, WA, USA	48°33.16'N; 48°32.97'N	122°58.79'W; 123°00.33'W	field	experimental	*Sargassum muticum*	removal experiment: removal of Sargassum vs control treatment; transplant experiment of kelps in plots with/without Sargassum	yes	yes	replicated	low probability	probably independent	yes	random	Not present
Britton-Simmons et al. 2011 - Hydrobiologia 661: 187-196	1)Colin's Cove, 2) Pt. George, 3) Snag Pt., 4) Hick's Bay, 5) Pt. Caution, WA,USA - laboratory	48,5°N	123°W	field/lab	observational	*Sargassum muticum*	abundance of resident species on non-native vs resident seaweed at each of 5 sites	yes	yes	replicated	low probability	probably independent	yes	random	Not present
Bulleri et al. 2006 - Marine Biology 148: 1213-1219	Cesenatico, Italy	44°11'N	12°24'E	field	obs/exp	*Codium fragile*	CI (4 blocks = Codium and 4 - Codium in each of the 3 breakwaters (sites))	yes	yes	replicated	low probability	probably independent	yes	random	Not present
Bulleri et al. 2010 - Ecology 91: 2205-2212	Antignano & Calafuria (Tuscany), Italy	1) 43°29' N; 2) 43°30' N	1) 10°19' E; 2) 10°20' E	field	experimental	*Caulerpa racemosa*	1)+caulerpa, natural sediment; 2) + caulerpa, + sediment; 3)-caulerpa, natural sediment; 4) -caulerpa, + sediment / 1)-caulerpat; 2) total removal of assemblages; 3) controls	yes	yes	replicated	low probability	probably independent	yes	random	Not present
Buschbaum et al. 2006 - Marine Biology 148: 743-754	North Sea (Sylt; Helgoland), Germany	54° 55'N; 53° 11'N	008° 20'E; , 007° 53'E	field	observational	*Sargassum muticum*	invader vs native plant	yes	yes	replicated	low probability	probably independent	no treatment	random	Not present
Byers et al. 2010 - Ecology 91: 1787-1796	Sponge Bay, Australia	35°15'44" S	150°26'48" E	field	experimental	*Caulerpa taxifolia*	invader vs unvegetated	yes	yes	replicated	low probability	probably independent	yes	random/other	Not present
Cacabelos et al. 2010 - Estuarine Coastal Shelf Science 89: 43-52	Monte Lourido (Galicia), Spain	42°7'26" N	8°49'4"W	field	experimental	*Sargassum muticum*	artificial units and natural individuals of non-native S. muticum and L. ochroleuca	yes	yes	replicated	low probability	probably independent	yes	random	Not present
Carroll et al. 2010 - Marine Biology 157:249-259	East Hampton, NY, USA	41° 01.108' N	72° 16.913'W	field	exp/obs	*Codium fragile*	non-native vs. resident	yes	yes	replicated	low probability	probably independent	yes	random	Not present
Casas et al. 2004 - Biological Invasions 6: 411-416	Cuevas Point (Patagonia), Argentina	42°46.8'S	64°59,46'W	field	experimental	*Undaria pinnatifida*	control vs non-native removal plots	yes	no	replicated	low probability	probably independent	yes	random	Not present
Ceccherelli & Campo 2002 Botanica Marina 45: 71-76	Antignano (Tuscany), Italy	43° 28' 24"N	10° 19' 42" E	field	experimental	*Caulerpa racemosa*	2 invaded areas vs 2 removal areas	yes	yes	replicated	low probability	probably independent	yes	random	Not present
Ceccherelli & Sechi 2002 - Hydrobiologia 474: 57-66	Galenzana bay (Elba Island), Italy	42° 44' 07.48" N	10° 14' 10.75" E	field	experimental	*Caulerpa taxifolia*	removal vs control plots	yes	yes	replicated	low probability	probably independent	yes	random	Not present
Chavanich & Harris 2004 - Veliger 47: 85-90	Cape Neddick& Star Island (Maine), USA - laboratory	43°10'N; 42°58'N	70°37'W; 70°36'W	field/lab	obs/exp	*Codium fragile*	CI (the 2 sites had different algal species, with Cape Neddick dominated by Laminaria and Star Island dominated by Codium); Reciprocal transplant experiment: Laminaria plants collected at Cape Neddick and transplanted to Star Island, while Codium collected at Star Island and transplanted to Cape Neddick + 5 control algae of Codium collected at Star Island and 5 Laminaria collected at Cape Neddick (undisturbed controls); 3 treatments: 1) control (without food), 2) fed with Laminaria, 3) fed with Codium	yes	yes	replicated	low probability	probably independent	yes	random	Not present
Chisholm et al. 2003 - Limnology and Oceanography 48: 787-794	laboratory	43.748825	7.488325	lab	experimental	*Caulerpa taxifolia*	uncolonized sediment vs sediment with Caulerpa	yes	yes	replicated	low probability	probably independent	yes	random	Not present
Curiel et al. 2002 - Hydrobiologia 477: 209-219	Venice lagoon, Italy	45°11'N	12°40'E	field	experimental	*Undaria pinnatifida*	3 treatments: 1) mechanical eradication of Undaria during the fertile period (MARCH); 2) mechanical eradication after the reproductive season (JULY); CONTROL station (no manipulation)	yes	yes	replicated	low probability	probably independent	yes	random	Not present
Deudero et al. 2010 - Biological Invasions 12: 41-52	Mallorca Island, Spain	39° 34'N	2° 20' E	field	observational	*Lophocladia lallemandii*	CI: invaded vs non-invaded	yes	yes	replicated	low probability	probably independent	no treatment	random	Not present
Deudero et al. 2011 - Estuarine Coastal and Shelf Science 93: 106-116	Portals vells, Spain	39° 28.321' N	2°31.320' E	field	observational	*Caulerpa racemosa*	CI: invaded vs non-invaded	yes	yes	replicated	low probability	probably independent	no treatment	random	Not present
DeVillele & Verlaque 1995 - Botanica Marina 38: 79-87	Cap Martin (Menton), France	43.748825	7.488325	field	observational	*Caulerpa taxifolia*	CI: 2 invaded and 1 control site	yes	yes	replicated	low probability	probably independent	no treatment	random	Not present
Drouin et al. 2011 - Marine Ecology-Progress Series 424: 105-114	Great-Entry Lagoon, Canada	47°37'N	61°31'W	field	exp/obs	*Codium fragile*	CI	yes	yes	replicated	low probability	probably independent	yes	random	Not present
Drouin et al. 2012 - Oecologia 168:491–502	l'Ies de la Madeleine, Canada	47°37'N	61°31'W	field	exp/obs	*Codium fragile*	CI: 5 invaded vs 5 non invaded sites	yes	yes	replicated	low probability	probably independent	yes	random	Not present
Dumay et al. 2002 - Journal of the Marine Biological Association of the United Kingdom 82: 379-387	Cap Martin, France & Antignano, Italy	43°45'N, 43°30'N	7°30'E, 10°20'E	field	observational	*Caulerpa racemosa & taxifolia*	3 conditions in each of the 2 sites (Cap Martin with taxifolia and Antignano with racemosa): 1) absence of competition (only Posidonia), 2) intermediate competition (simple contact), 3) high competition (algal stolons interwined within the rizhomes and matte)	yes	yes	replicated	low probability	probably independent	no treatment	random	Not present
Dumay et al. 2004 - Phytochemistry 65: 3211-3220	Cap Martin, France & Antignano, Italy	43°45'N, 43°30'N	7°30'E, 10°20'E	field	observational	*Caulerpa racemosa & taxifolia*	4 conditions in each of the 2 sites (Cap Martin with taxifolia and Antignano with racemosa): 1) absence of competition (only Posidonia), 2) intermediate competition (simple contact), 3) high competition (algal stolons interwined within the rizhomes and matte)	yes	no	replicated	low probability	probably independent	no treatment	random	Not present
Eyre et al. 2011 - Limnology and Oceanography 56: 1737-1750	laboratory	-27.84	153.40	lab	observational	*Caulerpa taxifolia*	CI: 3 invaded vs 3 non invaded	yes	yes	replicated	low probability	probably independent	no treatment	random	Not present
Ferrer et al. 1997 - Marine Ecology-Progress Series 149: 279-287	laboratory	43°45'46" N	7°27'47" E	lab	observational	*Caulerpa taxifolia*	aquaria with and without the non-native seaweed (entire plant or extracts)	yes	yes	replicated	low probability	probably independent	no treatment	random	Not present
Francour et al. 1995 - Hydrobiologia 300: 345-353	Cap Martin, France	43°45'46" N	7°27'47" E	field	observational	*Caulerpa taxifolia*	CI	yes	yes	replicated	low probability	probably independent	no treatment	random	Not present
Francour et al. 2009 - Vie et Milieu 59: 31-38	Arse des Fosses, France	45°41' N	7°20' E	field	observational	*Caulerpa taxifolia*	CI	yes	yes	replicated	low probability	probably independent	no treatment	random	Not present
Gallucci et al. 2012 - Marine Ecology-Progress Series 449: 95-108	1)Lake Conjola, 2)Port Hacking, 3)Pittwater, Australia	1)-35.25 2)-34.05 3)-33.58	1)150.43 2)151.13 3)151.27	field	observational	*Caulerpa taxifolia*	CI: 3 invaded vs 3 non invaded bare sand, 3 non-invaded vegetated	yes	yes	replicated	low probability	probably independent	no treatment	random	Not present
Gennaro & Piazzi 2011 - Marine Ecology-Progress Series 427: 59-70	Livorno (Tuscany), Italy	43° 28' 24"N	10° 19' 42" E	field	experimental	*Caulerpa racemosa*	(control vs non-native transplant) crossed with (control vs nutrient addition)	yes	yes	replicated	low probability	probably independent	yes	random	Not present
Gestoso et al. 2010 - Marine and Freshwater Research 61: 724-731	Ria de Aldan and Ria di Vigo (Galicia), Spain	42°20'N; 42°10'N	8°51'W both	field	observational	*Sargassum muticum*	abundance of resident species on non-native vs resident seaweed at each of 2 sites within each location	yes	yes	replicated	low probability	probably independent	no treatment	random	Not present
Gollan & Wright 2006 - Marine and Freshwater Research 57: 685-694	Lake Conjola, Australia	35°15' S	150°30' E	field and lab	observational	*Caulerpa taxifolia*	abundance of resident species on non-native vs resident seaweeds at each of 3 sites; replicated aquaria with 1 non-native and 4 resident seaweed to choose for building nests	yes	yes	replicated	low probability	probably independent	no treatment	random	Not present
Gribben & Wright 2006 - Marine Ecology-Progress Series 318: 177-185	Lake Conjola, Australia	35°15' S	150°26' E	field	observational	*Caulerpa taxifolia*	CI	yes	yes	replicated	low probability	probably independent	no treatment	random	Not present
Gribben & Wright 2006 - Oecologia 149: 352-361	Sponge Bay & Lake Conjola, Australia	35°15' S	150°27' E	field	observational	*Caulerpa taxifolia*	mussels collected from intermingled invaded and bare habitat plots	yes	yes	replicated	low probability	probably independent	no treatment	random	Not present
Gribben et al. 2009 - Aquatic biology 7: 217-227	Laboratory	-35.25	150.43	lab	experimental	*Caulerpa taxifolia*	either 8 replicate aquaria for each habitat levels if no-choice experiment or 5 different habitats in 8 replicate aquaria if choice experiment; in addition pairwise comparisons are made i.e. 2 habitats are offered in 8 replicate aquaria	yes	yes	replicated	low probability	probably independent	yes	random	Not present
Gribben et al. 2009 - Oecologia 158: 733-745	Lake Conjola, Australia	-35.25	150.43	field	observational	*Caulerpa taxifolia*	either 8 replicate aquaria for each habitat levels if no-choice experiment or 5 different habitats in 8 replicate aquaria if choice experiment; in addition pairwise comparisons are made i.e. 2 habitats are offered in 8 replicate aquaria	yes	yes	replicated	low probability	probably independent	no treatment	random	Not present
Harmelin-Vivien et al. 1996 - 2nd Int. Workshop Caulerpa taxifolia	France	43°45'46" N	7°27'47" E	field	observational	*Caulerpa taxifolia*	CI	yes	yes	replicated	low probability	probably independent	no treatment	random	Not present
Harries et al. 2007 - Journal of the Marine Biological Association UK 87: 1057-1066	Lion Rock and Ballochmartin bay, Scotland	55°45,289'N; 55°46,058'N	4°54,017'W; 4°53,078'W	field	observational	*Sargassum muticum*	CI	yes	yes	replicated	low probability	probably independent	no treatment	random	Not present
Hendricks et al. 2010 - Marine Biology 157: 473-481	laboratory	51°49'N	4°06'E	lab	experimental	*Caulerpa racemosa & taxifolia*	flumes with non-native species or with resident species	yes	no	replicated	low probability	probably independent	yes	random	Not present
Höffle et al. 2011 - Estuarine Coastal and Shelf Science 92: 35-46	laboratory	55.50	9.07	lab	experimental	*Gracilaria vermiculophylla*	CI: randomized block design; 3 temperature levels, 3 invasive algal species density levels, 3 replicates for each combination of treatments	yes	no	replicated	low probability	probably independent	yes	random	Not present
Holmer et al. 2009 - Estuaries and Coasts 32: 456-466	Balearic Island, Spain	39°22.030' N	3°13.738' E	field	observational	*Caulerpa racemosa & taxifolia*	CI: 1 site with C. racemosa or 1 site with C.taxifolia vs 1 site without invasive species	yes	yes	replicated	low probability	probably independent	no treatment	random	Not present

Husa et al. 2008 - Marine Biology Research 4: 414-428	Flora-Stadt, Solund, Norway	61.10	4.80	field	observational	*Heterosiphonia japonica*	CI	yes	yes	replicated	low probability	probably independent	no treatment	random	Not present
Ingolfsson 2008 - Estuarine Coastal and Shelf Science 77: 484-490	Iceland	64.00	-22.67	field	observational	*Fucus serratus*	372 samples invaded, 227 samples not invaded	yes	no	replicated	low probability	probably independent	no treatment	random	Not present
Irigoyen et al. 2011 - Biological Invasions 13: 1521-1532	Punta Cuevas, Nuevo Gulf (Patagonia), Argentina	64°5'S	42°30'W	field	observational	*Undaria pinnatifida*	CI (1 transect for each combination of the 2 treatments: (a) reef relief (low vs high); (b) Undaria presence (low/absent vs high density)	yes	yes	replicated	low probability	probably independent	no treatment	random	Not present
Irigoyen et al. 2011 - Biological Invasions 13: 17-24	Nuevo Gulf (Patagonia), Argentina	65°S	42°40'W	field	experimental	*Undaria pinnatifida*	5 replicate strips (2.25mx5m) for each of the two treatments: Undaria-removed vs Undaria-intact	yes	yes	replicated	low probability	probably independent	yes	random	Not present
Janiak & Whitlatch 2012 - Journal of Experimental Marine Biology and Ecology 413: 38-44	Millstone power station, CT, USA	41.30	-72.15	field	observational	*Grateloupia turuturu*	CI	yes	yes	replicated	low probability	probably independent	no treatment	random	Not present
Jones & Thornber 2010 - Marine Ecology-Progress Series 400: 87-100	Brenton Point State Park, Rhode Island, USA	41°27'N	71°21'W	field	observational	*Codium fragile*	CI	yes	yes	replicated	low probability	probably independent	no treatment	random	Not present
Kelly et al. 2011 - Marine Ecology-Progress Series 437: 69-78	Little Duck Island,Nova Scotia, Canada	44°22'N	64°11'W	field	observational	*Codium fragile*	BA	yes	yes	replicated	low probability	probably independent	no treatment	random	Not present
Klein & Verlaque 2011 - Journal of the Marine Biological Association of the United Kingdom 91: 117-125	Marseilles, France	43°13'44" N	5° 20'41" E	field	experimental	*Caulerpa racemosa*	1)Invaded; 2)removed; 3) control	yes	yes	replicated	low probability	probably independent	yes	random	Not present
Lang & Buschbaum 2010 - Journal of Sea Research 63: 119-128	Island of Sylt, Germany	54°55'N	8°20'E	field	experimental	*Sargassum muticum*	4 densities of Sargassum: 1) no Sargassum; 2) 7 individuals/m2: 3) 15 indiv/m2: 4) 45 indiv/m2:	yes	yes	replicated	low probability	probably independent	yes	random	Not present
Lawson et al. 2012 - Marine Ecology-Progress Series 448: 259-270	laboratory	37°15N	75°49W	lab	experimental	*Gracilaria vermiculophylla*	cores without invader vs cores with different densities of the invader	yes	yes	replicated	low probability	probably independent	yes	random	Not present
Levi & Francour 2004 - Journal of Fish Biology 64: 55-64	Alpes-Maritimes, France	43°50' N	7°10' E	field	observational	*Caulerpa taxifolia*	CI	yes	yes	replicated	low probability	probably independent	no treatment	random	Not present
Levin et al. 2002 - Ecology 83: 3182-3192	Isle of Shoals, New Hampshire, USA	42°59'N	70°37'W	field	experimental	*Codium fragile*	Randomized block design with 2 cement slabs in each of the 8 plots in each of the 3 sites; plots divided in 2 treatments: 1) Codium removed or 2) Control (no algae removed); Randomized block design with 2 kelp plants in each of the 8 plots in each of the 3 sites; 4 treatments: 1) - Codium and – Membranipora; 2) - Codium and + Membranipora; 3) + Codium and - Membranipora; 4) + Codium and + Membranipora	yes	yes	replicated	low probability	probably independent	yes	random	Not present
Lutz et al. 2010 - Marine Biology 157: 1095-1103	1) Bulli; 2) Towradgi; 3) Gerringong, Australia	1) 34°20'19,49"S; 2) 34°23'10.35"S; 3) 34°45'02,64"S	1) 150°55'34,73"E; 2) 150°54'55,81"E; 3) 150°49'55,51"E	field	observational	*Codium fragile*	8 native and 8 invasive Codium plants collected in each of the 3 sites within each of the 3 locations	no	no	replicated	low probability	probably independent	no treatment	random	Not present
Lyons & Scheibling 2007 - Marine Biology 152: 285-295	laboratory	44°3'N	64°03'W	lab	experimental	*Codium fragile*	18 aquaria assigned to 3 diet treatments: 1) high-rations Laminaria longicruris, 2) Codium fragile, 3) low-rations L. longicruris + controls (plants of each species placed in urchin-free aquaria)	yes	yes	replicated	low probability	probably independent	yes	random	Not present
Lyons & Schliebling 2007 - Journal of Experimental Marine Biology and Ecology 349: 194-204	laboratory	44°29N	63°32W	lab	experimental	*Codium fragile*	urchins fed with Codium vs urchins fed with Laminaria	yes	yes	replicated	low probability	probably independent	yes	random	Not present
Martinez-Luscher & Holmer 2010 - Marine Environmental Research 69: 345-349	laboratory	1)55°30'N 2)55°36'N 3)55°28'N	1)9°40'E 2) 10°36'E 3) 9°45'E	lab	experimental	*Gracilaria vermiculophylla*	mesocosms with or without Gracilaria	yes	yes	replicated	low probability	probably independent	yes	random	Not present
Mckinnon et al. 2009 - Marine Ecology-Progress Series 380: 59-71	St. Georges Basin and Burrill lake, Australia	35°11' S, 35°24' S	150°36' E, 150°27' E	field	observational	*Caulerpa taxifolia*	C) Area 1: A) C.taxifolia; B) unveg.; C) Hal. ; Area 2: A) C.taxifolia, B) Zostera	yes	yes	replicated	low probability	probably independent	no treatment	random	Not present
Molenaar et al. 2009 - Scientia Marina 73: 329-335	Cap Martin and Cap d' Antibes, France	43°45' N, 43°33' N	7°30' E, 7°7' E	field	observational	*Caulerpa taxifolia*	CI	yes	yes	replicated	low probability	probably independent	no treatment	random	Not present
Nohrén & Odelgard 2010 - Aquatic Biology 9: 139-148	Bokevik, Sweden	58°14'52" N	11°26'53" E	field	experimental	*Sargassum muticum*	4 different patch sizes (0.25m2; 0.5m2; 1m2; 2m2) of each vegetation type (Fucus vesiculosus, Sargassum muticum, Zostera marina, filamentous algae) and control without macrophytes and sand patches	yes	yes	replicated	low probability	probably independent	yes	random	Not present
Olabarria et al. 2009 - Marine Environmental Research 67: 153-158	Monte Lourido (Galicia), Spain	42°7'26"N	8°49'34"W	field	experimental	*Sargassum muticum*	2 treatments (control vs removal of Sargassum) in each of the 2 sites	yes	yes	replicated	low probability	probably independent	yes	random	Not present
Olabarria et al. 2010 - Journal of Experimenal Marine Biology and Ecology 396: 18-26	Bouzas & Etea (Galicia), Spain	42°13'N; 42°15'N	8°41'W	field	experimental	*Sargassum muticum*	6 treatments (each with a different addition of Sargassum and other algae) + procedural controls (sediment physically disturbed but detritus not added) + natural control plots in each of the 2 sites	yes	yes	replicated	low probability	probably independent	yes	random	Not present
Pacciardi et al. 2011 - Biological Invasions 13: 2677-2690	Capraia and Elba islands (Tuscany), Italy	43°04' N; 42°45' N	09°50' E; 10°14' E	field	obs/exp	*Caulerpa racemosa*	CI / 1)invaded; 2)removed; 3) control	yes	yes	replicated	low probability	probably independent	yes	random	Not present
Pederson & Johnson 2008 - Ices Journal of Marine Science 65: 1-11	Four Mile Point and Lords Bluff, Tasmania	42°36'S; 42°3'S	148°02'E; 148°E	field	observational	*Undaria pinnatifida*	CI	yes	yes	replicated	low probability	probably independent	no treatment	random	Not present
Piazzi & Balata 2008 - Marine Environmental Research 65: 50-61	Tuscany, Italy	43°30'N	10°20'E	field	observational	*Caulerpa racemosa*	CI: 2 habitats at 2 different depths (5 and 25m); 4 locations for each habitat (2 invaded and 2 non-invaded); 2 sites for each location	no	no	replicated	low probability	probably independent	no treatment	random	Not present
Piazzi & Balata 2009 - Biological Invasions 11: 193-204	Livorno (Tuscany), Italy	43°30' N	10°19' E	field	observational	*Caulerpa racemosa*	CI	yes	no	replicated	low probability	probably independent	no treatment	random	Not present
Piazzi & Ceccherelli 2006 - Estuarine Coastal and Shelf Science 68: 455-461	Livorno (Tuscany), Italy	43°30' N	10°19' E	field	experimental	*Caulerpa racemosa*	1)invaded; 2)removed; 3) control	yes	yes	replicated	low probability	probably independent	yes	random	Not present
Piazzi & Cinelli 2003 - European Journal of Phycology 38: 223-231	Livorno (Tuscany), Italy	43°30' N	10°23' E	field	observational	*Caulerpa taxifolia*	CI Habitat: 1)rocky, 2) P.oceanica 3) matte; invader: in 1: control, turf, C.taxifolia/ C.racemosa. In 2 : control and turf. In 3 : control and turf/C.racemosa	yes	no	replicated	low probability	probably independent	no treatment	random	Not present
Piazzi et al. 2001 - Marine Ecology-Progress Series 210: 149-159	Livorno (Tuscany), Italy	43°30' N	10°30' E	field	observational	*Caulerpa racemosa*	Beyond BACI	yes	yes	replicated	low probability	probably independent	no treatment	random	Not present
Piazzi et al. 2003 - Cryptogamie Algologie 24: 233-243	Tuscany, Italy	43°28'24"N	10°19'42"E	field	observational	*Caulerpa racemosa & taxifolia*	CI: 2 replicate plots in each of the 2 sites for each of the 4 habitats (C. taxifolia patches, C. racemosa patches, mixed patches and reference patches)	yes	no	replicated	low probability	probably independent	no treatment	random	Not present
Piazzi et al. 2005 - Estuarine Coastal and Shelf Science 64: 467-474	Livorno (Tuscany), Italy	43°28'24" N	10°19'42" E	field	experimental	*Caulerpa racemosa*	1)control 2)Caulerpa transplant (2 sites: + sediment; 2 sites: -sediment)	yes	yes	replicated	low probability	probably independent	yes	random	Not present
Piazzi et al. 2007 - Cryptogamie Algologie 28: 289-301	Tuscany, Italy	43°28'24"N	10°19'42"E	field	observational	*Caulerpa racemosa*	CI: 3 replicate plots in each of the 2 sites (2mx10m) for each of the 3 habitats (C. racemosa, Womersleyella setacea, reference patches)	yes	yes	replicated	low probability	probably independent	no treatment	random	Not present
Piazzi et al. 2007 - Scientia Marina 71: 129-135	Tuscany, Italy	43°30'N	10°20'E	field	observational	*Caulerpa racemosa*	CI: invaded vs non-invaded areas with 2 sites each	yes	yes	replicated	low probability	probably independent	no treatment	random	Not present
Polte & Buschbaum 2008 - Aquatic Biology 3: 11-18	Wadden Sea, Germany-Denmark	55°02'N	8°25'E	field	observational	*Sargassum muticum*	Sargassum bed control, transplanted to unvegetated bed, transplanted to Sargassum bed	yes	yes	replicated	low probability	probably independent	no treatment	random	Not present
Prado & Thibaut 2008 - Scientia Marina 72: 645-654	Botany Bay (NSW), Australia	34°1' S	151°11' E	field	observational	*Caulerpa taxifolia*	CI: Zostera capricorni vs C.taxifolia	yes	yes	replicated	low probability	independent	no treatment	random	Not present
Raffo et al. 2009 - Journal of the Marine Biological Association UK 89: 1571-1580	Cracker Bay (Patagonia), Argentina	42°56'S	64°27'W	field	observational	*Undaria pinnatifida*	CI	no	no	replicated	low probability	independent	no treatment	random	Not present
Relini et al. 1998 - Italian Journal of Zoology 65: 465-470	Imperia, Italy	43.883363	8.031256	field	observational	*Caulerpa taxifolia*	CI: 1 invaded and 1 control area	yes	yes	replicated	low probability	independent	no treatment	random	Not present
Rodil et al. 2008 - Journal of Experimental Marine Biology and Ecology 358: 1-13	Ladeira (Corrubedo beach-lagoon), Spain	42°34'33"N	9°3'16"W	field	experimental	*Sargassum muticum*	2 types of algal wrack patches (Sargassum muticum and Saccorhiza polyschides) and control patches (in bare sediment) at 2 heights on the shore in each of the 2 sites	yes	yes	replicated	low probability	independent	yes	other	Not present
Rohr et al. 2011 - Aquatic Ecology 45: 213-219	Rhode Island, USA	41°29'N	71°25'W	field	experimental	*Neosiphonia harveyi*	mimics with resident epiphytes vs mimics with the non-native epiphyte	yes	yes	replicated	low probability	independent	yes	other	Not present
Rossi et al. 2011 - Marine Biology 158: 2705-2715	Galician coast, Spain	42° 15' N	8° 42' W	field	experimental	*Sargassum muticum*	control plots vs plots with different amounts of Sargassum.	yes	yes	replicated	low probability	independent	yes	other	Not present
Sanchez & Fernandez 2005 - Journal of Phycology 41: 923-930	Aramar, Spain	43°36'N	5°46'W	field	experimental	*Sargassum muticum*	control vs Sargassum removal plots in 1 site (exp1); control vs total removal of assemblages in 1 site (exp2)	yes	yes	replicated	low probability	independent	yes	other	Not present
Sanchez et al. 2005 - Journal of Phycology 41: 942-949	Verdicio, Banugues and Aramar, Spain	1)43°39'N; 2)43°38'N; 3)43°36'N	1)5°50'W; 2)5°48'W; 3)5°46'W	field	observational	*Sargassum muticum*	BA	yes	yes	replicated	low probability	independent	no treatment	other	Not present
Scheibling & Anthony 2001 - Marine Biology 139: 139-146	laboratory	44°36'N	63°33'W	lab	experimental	*Codium fragile*	18 aquaria assigned to 3 diet treatments with 24 sea urchins in each aquaria: 1) Codium, 2) Laminaria, 3) mixed diet treatment	yes	yes	replicated	low probability	independent	yes	other	Not present
Scheibling & Gagnon 2006 - Marine Ecology-Progress Series 325: 1-14	Little Duck Island (Nova Scotia), Canada	44°22'N	64°11'W	field	experimental	*Codium fragile*	5 plots for each treatment: 1) pulse removal of Codium (removal once at the start of the exp and again after 1 yr); 2) control treatment; 3) press removal of Codium (at the start of the exp and then at monthly intervals until the end of the exp). After the end of the exp, canopy cover was measured in 8-10 randomly positioned quadrats within the exp area	yes	yes	replicated	low probability	independent	yes	other	Not present
Schimdt & Scheibling 2006 - Botanica Marina 49: 315-330	Cranberry Cove (Nova Scotia), Canada	44°28'N	63°56'W	field	observational	*Codium fragile*	CI (3 sites: 1 dominated by Codium, 1 by Laminaria and 1 with mixed stands; 10 thalli of Codium and 10 of Laminaria collected in monospecific stands and 5 of each species collected in the mixed stand)	yes	yes	replicated	low probability	independent	no treatment	other	Not present
Schimdt & Scheibling 2007 - Journal of Experimental Marine Biology and Ecology 341: 110-130	Cranberry Cove (Nova Scotia), Canada	44°28'N	63°56'W	field	experimental	*Codium fragile*	CI (2 sites: 1 dominated by Codium and 1 by Laminaria; 4 strips per treatment in each site: treat 1) Canopy removed, treat 2) Canopy intact; 2 quadrats 1 m^2 in each strip)	yes	yes	replicated	low probability	independent	yes	other	Not present
Seldon & Witman 2004 - Ecology 85: 2938-2945	Portsmouth, New Hampshire, USA	42° 159.15' N	70° 37.150'W	field	experimental	*Codium fragile*	plots within areas covered by Codium vs plots within bare space vs plots within mussel beds	yes	yes	replicated	low probability	probably independent	yes	other	Not present

Staehr et al. 2000 - Marine Ecology-Progress Series 207: 79-88	Limfjorden, Denmark	56°N	10°E	field	observational	*Sargassum muticum*	CI: 10 transects with Sargassum and 14 with no or little Sargassum cover	yes	yes	replicated	low probability	independent	no treatment	other	Not present
Strong & Dring 2011 - Botanica Marina 54: 223-229	Strangford Lough, Ireland	54° 26.105' N	005° 32.475' W	field	experimental	*Sargassum muticum*	plots with sargassum vs plots without Sargassum	yes	yes	replicated	low probability	independent	yes	other	Not present
Strong et al. 2006 - Marine Ecology-Progress Series 321: 87-97	Paddy's Point, Ireland & Russel's Lagoon, England	54°32'N; 50°49.5'N	5°35'W; 1°00.05'W	field	observational	*Sargassum muticum*	At each (invaded) site 7 corers are taken inside and outside the Sarassusm canosy	yes	no	replicated	low probability	independent	no treatment	other	Not present
Strong et al. 2009 - Journal of the Marine Biological Association of the United Kingdom 89: 303-314	Strangford Lough, Ireland	54° 26.105' N	005° 32.475' W	field	experimental	*Sargassum muticum*	epiphytes on Sargassum thalli vs epiphytes on Saccharina/Halvdrin/Fucus	yes	yes	replicated	low probability	independent	yes	random	Not present
Sureda et al. 2008 - Marine Environmental Research 66: 359-363	Mallorca, Spain	39° 34'32.88"N	2°20'54.46"E	field	observational	*Lophocladia lallemandii*	1 invaded and 1 control area	yes	no	replicated	low probability	independent	no treatment	random	Not present
Sureda et al. 2009 - Ecotoxicology and Environmental Safety 72: 795-801	Cala d'Or, Spain	38°N	1°W	field/lab	obs/exp	*Caulerpa taxifolia*	Lab: 6 aquaria with Posidonia and 6 with C. taxifolia; Field: C1: 1 site with Posidonia and 1 with C. taxifolia	yes	yes	replicated	low probability	independent	yes	other	Not present
Tanner 2011 - Estuaries and Coasts 34: 831-838	Port River, Australia	34°47'S	138°31' E	field	observational	*Caulerpa taxifolia*	CI	yes	yes	replicated	low probability	independent	no treatment	other	Not present
Taylor et al. 2010 - Marine Ecology-Progress Series 420: 73-81	Botany Bay (NSW), Australia	33°59'S	151°12' E	field	experimental	*Caulerpa taxifolia*	1) high quantity; 2) low quantity; 3) high quality; 4) low quality of Caulerpa detritus; 5) control	yes	yes	replicated	low probability	independent	yes	random	Not present
Thomsen 2010 - Aquatic Invasions 5: 341-346	Snaptun Harbor, East Jutland, Denmark	55° 49' 4.02" N	10° 3' 12.84"E	field	experimental	*Gracilaria vermiculophylla*	plots with Gracilaria (2 densities) vs plots without Gracilaria	yes	yes	replicated	low probability	independent	yes	other	Not present
Tomas et al. 2011 - Biological Invasions 13: 1559-1570	laboratory	39.5231	2.6626	lab	observational	*Caulerpa racemosa*	aquaria with Posidonia vs aquaria with non-native species	yes	yes	replicated	low probability	independent	no treatment	random	Not present
Trowbridge & Todd 2001 - Ecological Monographs 71: 219-243	laboratory	56°17'N	5°14'W	lab	experimental	*Codium fragile*	10 slugs for each of the 4 diet tretments: 1) Codium fragile atlanticum, 2) C. fragile tomentosoides, 3) C. tomentosum, 4) no alga (starvation control); larvae exposed to different substrates: 1) Cladophora, 2) Codium f. tomentosoides, C. tomentosum, 4) negative control (indicates the extent to which E. viridis metamorphosed spontaneously in the absence of any apparent cues); Dishes with postlarval Elysia subjected to 3 diet treatments: 1) Cladophora, 2) C.f. atlanticum, 3) no food (control). Half of the dishes with aluminium foil (dark treatment) or no foil (light treatment) to determine whether juveniles benefited from retained algal chloroplasts	yes	yes	replicated	low probability	independent	yes	random	Not present
Trowbridge 2001 - Journal of the Marine Biological Association UK 81: 931-937	County Clare, Ireland	52°40'N	9°38'W	field	observational	*Codium fragile*	CI: invaded vs non-invaded pools	yes	yes	replicated	low probability	independent	no treatment	random	Not present
Ulas et al. 2011 - Turkish Journal of Fisheries and Aquatic Sciences 11: 385-391	Kuşadasý Bay, Turkey	38.057479	26.946485	field	observational	*Caulerpa racemosa*	CI: 1 invaded and 1 control area	yes	yes	replicated	low probability	independent	no treatment	other	Not present
Valentine & Johnson 2005 - Marine Ecology Progress Series 285: 43-55	Lords Bluff, Tasmania	42°31'S	147°59'E	field	experimental	*Undaria pinnatifida*	8 treatments from all the possible combinations of +/- urchins, +/- Undaria, +/-enhanced native algal spore inoculum	yes	yes	replicated	low probability	independent	yes	other	Not present
Vazques-Luis et al. 2008 - Estuarine Coastal and Shelf Science 84: 161-170	Cape of Santa Pola, France	38°12' N	0°30' O	field	observational	*Caulerpa racemosa*	CI	yes	yes	replicated	low probability	independent	no treatment	random	Not present
Vazques-Luis et al. 2009 - Helgoland Marine Research 63: 107-117	Cape of Santa Pola, France	38°12' N	0°30' O	field	observational	*Caulerpa racemosa*	CI	yes	yes	replicated	low probability	independent	no treatment	random	Not present
Vazquez-Luis et al. 2008 - Marine Environmental Research 65: 416-426	Cape of Santa Pola, France	38.202377	-0.507757	field	observational	*Caulerpa racemosa*	CI: 3 invaded vs 3 non invaded	yes	yes	replicated	low probability	independent	no treatment	random	Not present
Vazquez-Luis et al. 2010 - Hydrobiologia 654:147–154	laboratory	38.202377	-0.507757	lab	experimental	*Caulerpa racemosa*	Replicated tanks with different habitats (habitats including the non-native seaweed 3 habitats with	yes	no	replicated	low probability	independent	yes	random	Not present
Viejo 1997 - Journal of the Marine Biological Association of the United Kingdom 77: 325-340	Oleiros, Spain	43°34'N	8°12'W	field	experimental	*Sargassum muticum*	3 sites with 2 treatments each: presence of Sargassum and removal of Sargassum (5 replicated pools each)	yes	yes	replicated	low probability	independent	yes	random	Not present
Wernberg et al. 2004 - Helgoland Marine Research 58: 154-161	Draby Vig, Denmark	56°49'9'92"N	8°50'70"E	field	observational	*Sargassum muticum*	CI	yes	no	replicated	low probability	independent	no treatment	random	Not present
White & Shurin 2011 - Journal of Experimental Marine Biology and Ecology 405: 111-119	Dixon Island, Canada	48°51,15'N	125°0,7'W	field	experimental	*Sargassum muticum*	Sargassum muticum cover treatment: 60% (control), 40%, 20% ad 0%; for each of them there were 2 light	yes	yes	replicated	low probability	independent	yes	random	Not present
Wikstrom & Pavia 2004 - Oecologia 138: 223-227	Tjärnö Marine Biological Laboratory, Sweden/laboratory	58° 52' N	11° 09'	field/lab	experimental	*Fucus evanescens*	invader vs native	yes	yes	replicated	low probability	independent	yes	random	Not present
Wikstrom et al. 2004 - Biological Invasions 6: 141-150	Oresund, Sweden	55.63	12.85	field	observational	*Fucus evanescens*	invader vs native	yes	yes	replicated	low probability	independent	no treatment	random	Not present
Wikstrom et al. 2006 - Oecologia 148: 593-601	Skagerrak coast, Sweden	S1: 58° 93' N; S2: 58° 91' N; S3: 58° 87' N	S1: 11° 13' E; S2: 11° 12' E; S3: 11° 14' E	field	observational	*Fucus evanescens*	invader vs native	yes	yes	replicated	low probability	independent	no treatment	random	Not present
Williams & Grosholz 2002 - Marine Ecology Progress Series 233: 307-310	Huntington harbor (California), USA	33°41' N	118°01' W	field	observational	*Caulerpa taxifolia*	CI	yes	yes	replicated	low probability	independent	no treatment	random	Not present
Wright & Gribben 2008 - Journal of Applied Ecology 45: 1540-1549	Sponge Bay & Lake Conjola, Australia	35°15' S	150°27' E	field	experimental	*Caulerpa taxifolia*	transplant experiment of Anadara. 6 size classes: small, medium, large (C.tax origin), large(unveg. Origin), very large (C.tax origin) and very large (unveg. Origin). Each size class transplanted to unveg. sediment or Caulerpa.	yes	yes	replicated	low probability	independent	yes	random	Not present
Wright et al. 2007 - Marine and Freshwater Research 58: 263-272	1)St. Georges basin; 2) Lake Burrill; 3) Lake Conjola, Australia	1) 35°11' S; 2) 35°24' S; 3) 35°16' S	1) 150°36' E; 2) 150°27' E; 3) 150°30' E	field	observational	*Caulerpa taxifolia*	CI Est. 1: 3 habitats (unveg., Halophila ovalis, C.taxifolia) in 2 sites; Est. 2: 3 habitats (unveg., Zostera capricorni, C.taxifolia) in 1 site and 2 habitats (Zostera and C.tax.) in 1 site; Est 3: 2 habitats (unveg., C.tax.) in 2 sites	yes	no	replicated	low probability	independent	no treatment	random	Not present
Wright et al. 2010 - Oecologia 163: 527-531	1)St. Georges basin; 2) Lake Burrill; 3) Lake Conjola, Australia/laboratory	2) 35°11' S; 2) 35°24' S; 3) 35°16' S	2) 150°36' E; 2) 150°27' E; 3) 150°30' E	field/lab	obs/exp	*Caulerpa taxifolia*	CI: Est.1: 3 habitats (unveg., H. ovalis, C.tax); est 2: 3 habitats (unveg., Z.capricorni and C.tax); est.3: 2 habitats (unveg., C.tax); sediment type (Caulerpa vs unveg.) and water column Do (high vs low) in all possible combinations; 2 tubs in each habitat type (Cavlerpa vs Unveg.) in each of 4 blocks; 4 Cavlerpa and unveg. plots	yes	yes	replicated	low probability	independent	yes	random	Not present
Wright et al. 2012 - Marine and Freshwater Research 63: 246-250	Site 1: St Georges Basin Site 2: Lake Conjola, Australia	35° 12' S; 35° 268' S	150° 35' E; 150° 508' E	field/lab	observational	*Caulerpa taxifolia*	non-native vs. resident	yes	yes	replicated	low probability	independent	no treatment	random	Not present
York et al. 2006 - Marine Ecology-Progress Series 312: 223-234	Botany Bay and Port Hacking (NSW), Australia	34° S	151°10' E	field	observational	*Caulerpa taxifolia*	CI	yes	yes	replicated	low probability	independent	no treatment	random	Not present
Finally excluded papers															
Antolic et. al. 2008 - Nova Hedwigia 86: 155-167	Marinkovak Island, Adriatic Sea			field	observational	*Caulerpa racemosa*	1 patch invaded vs 1 patch not invaded	yes	yes	unreplicated	high probability	not applicable	no treatment	random	Probably present, due to lack of replication
Antoniadou & Chimrigiou 2007 - Journal of the Marine Biological Association of the United Kingdom 87: 629-641	Chalkidiki Peninsula, Greece			field	observational	*Wormsleyella setacea*	2 depth at each of 4 sites (all invaded)	yes	yes	replicated	low probability	independent	no treatment	random	Not present; unuseful data due to the lack of reference sites
Argyrou et al. 1999 - Oceanologica Acta 22: 517-528	Mony bay, Cyprus			field	observational	*Caulerpa racemosa*	3 sites sampled before and the same sampled after invasion	no	no	replicated	high probability	independent	no treatment	random	Probably present; there are no control sites; sites were in proximity of sewage outfalls and fish farming
Arigoni et al. 2002 - Journal of Fish Biology 60: 1486-1497	Between menton and cannes, France			field	observational	*Caulerpa taxifolia*	CI: 1 invaded site and 4 control sites	yes	no	replicated	low probability	independent	no treatment	random	Not present
Bellan-Santini et al. 1996 - Journal of the Marine Biological Association of the United Kingdom 76: 235-237	Cap Martin, France			field	observational	*Caulerpa taxifolia*	CI: 1 invaded and 1 control site	no	no	unreplicated	high probability	not applicable	no treatment	random	Probably present, due to lack of replicate plots within each area
Box et al. 2010 - Botanica Marina 53: 367-375	Mallorca Island, Spain			field	observational	*Caulerpa racemosa*	CI: 1 invaded site and 1 non invaded site; 3 areas (separated by 100m) within each site	yes	yes	unreplicated	high probability	not applicable	no treatment	random	Probably present, due to lack of replicate plots within each area
Burfeind et al. 2009 - Environmental Biology of Fishes 84: 317-322	One Mile Harbour, Moreton Bay, Australia			lab	experimental	*Caulerpa taxifolia*	3 habitats: seagrass-Caulerpa, seagrass-sand, caulerpa-sand	yes	yes	replicated	low probability	independent	yes	random	Not present
Cabanellas-Reboredo et al. 2010 - Scientia Marina 74: 101-110	Balearic Islands, Spain			field	observational	*Lophocladia lallemandii*	CI: 3 non invaded and 3 invaded sites	yes	yes	replicated	high probability	independent	no treatment	random	Probably present: invaded and not invaded sites are on two different islands
Casu et al. 2009 - Aquatic Ecology 43 : 1023-1029	Porto Torres, Sardinia, Italy			field	observational	*Caulerpa racemosa*	CI: 2 invaded and 2 non invaded sites	yes	yes	replicated	low probability	independent	no treatment	random	Not present
Ceccherelli & Cinelli 1997 - Journal of Experimental Biology and Ecology 217: 165-177	Elba Island, Italy			field	experimental	*Caulerpa taxifolia*	invaded and invader removal plots	yes	yes	replicated	low probability	independent	yes	random	Not present; but data were the same reported in Ceccherelli and Sechi 2002
Engelen 2011 - Hydrobiologia 669: 157-165	Portugal			lab	experimental	*Sargassum muticum*	+/- grazers in presence of Sargassum and resident seaweeds	yes	yes	replicated	high probability	independent	yes	random	Probably present, due to lack of controls (without Sargassum), in addition, response variable cannot be interpreted as positive or negative effects of Sargassum on grazers
Farrel & Fletcher 2004 - Journal of Experimental Marine Biology and Ecology 334: 236-243	Torquay, UK			field	observational/experimental	*Undaria pinnatifida*	control and removal plots of canopy species (both Undaria and resident species)	yes	yes	replicated	high probability	independent	yes	random	Probably present; it is not possible to disentagle the effect of Undaria from those of resident canopy species
Katsanevakis and Thessalou-Legaki 2009 - Aquatic Biology 8: 45-54	Souda Bay, Greece			field	observational	*Caulerpa racemosa*	1 or more transect sampled at each of 25 sites (a priori, unknown if they were invaded or not)	no	no	some sites were unreplicated	high probability	unknown	no treatment	random	Probably present; lack of proper controls; depth and length differed among transects
Klein & Verlaque 2009 - Hydrobiologia 636: 369-378	Bay of Marseille, France			field	observational	*Caulerpa racemosa*	CI: 1 invaded and 1 non invaded site	yes	yes	replicated	low probability	independent	no treatment	random	Probably present; the non-invaded site was highly colonised by another non native species, W. Setacea
Longepierre et al. 2005 - Biodiversity and Conservation 14: 365-376	Golfe Juan Bay and Menton, France			field	observational	*Caulerpa taxifolia*	CI: 2 invaded and 1 control site	yes	yes	unknown	high probability	unknown	no treatment	unknown	Probably present; unknown number of replicates
Lorenti et al. 2011 Marine Ecology-an Evolutionary Perspective 32: 320-334	Gulf of Salerno, Italy			field	observational	*caulerpa racemosa*	BA: 4 sites sampled one time before and 2 times (very close) after 24 years.	yes	yes	replicated	high probability	independent	no treatment	random	Probably present; lack of proper controls
Montefalcone et al. 2007 Estuarine Coastal and Shelf Science 75: 63-71	Liguria, Italy			field	observational	*Caulerpa spp.*	17 sites (unknown presence/absence of the non-natives); 1 transect at each of 3 depths within each site	yes	yes	replicated	high probability	Not independent (values of the dependent variables were averaged over the three depths at each site)	no treatment	unknown	Not present
Oakes et al. 2011 - Limnology and Oceanography 56: 1824-1831	Moreton Bay, Australia			field	experimental	*Caulerpa taxifolia*	12 plots were evenly allocated to 4 treatments : 1) addition of 13Clabeled C. taxifolia and unlabeled Z. capricorni detritus (CT), (2) addition of 13C-labeled Z. capricorni and unlabeled C. taxifolia (ZC), (3) procedural control (PC), and (4) control (C).	yes	yes	replicated	low probability	independent	yes	random	Not present
Pedersen et al. 2005 Aquatic Botany 83: 31-47	Dra'by Vig, Limfjorden, Denmark			field	observational	*Sargassum muticum*	one site: estimates of biomass/cover/growth of the non-native and a resident seaweed	yes	yes	replicated	low probability	independent	no treatment	proportional stratified	Not present
Peirano et al. 2005 Marine Pollution Bulletin 50: 817-822	Liguria, Italy			field	observational	*Caulerpa taxifolia*	CI: 1 transect at each of 8 sites (differing in depth; 1 invaded and 7 not invaded)	yes	yes	unreplicated	high probability	not applicable	no treatment	random	Probably present; there was no replication of transects at each site; 1 site had been greatly affected by the "Haven" oil spill
Piazzi & Cinelli 2001 Botanica Marina 44: 509-520	Tuscany, Italy			field	observational	*Wormsleyella setacea*	3 invaded sites	yes	yes	replicated	low probability	independent	no treatment	random	Not present; unuseful data due to the lack of reference sites
Relini et al. 1998 - Biologia Marina Mediterranea 5: 185-195	Italy			field	observational	*Caulerpa taxifolia*	CI: 1 invaded and 1 not invaded site	no	no	unreplicated	high probability	not applicable	no treatment	random	Probably present, due to lack of replication
Sanchez & Fernandez 2006 - Marine Ecology Progress Series 313: 85-94	Aramar, Spain			field	experimental	*Sargassum muticum*	control plots and invader-transplanted plot	yes	yes	replicated	low probability	independent	yes	random	Not present

Verlaque & Fritayre 1994 - Oceanologica Acta 17: 659-672	Cap Martin, France			field	observational	*Caulerpa taxifolia*	CI: 1 invaded and 1 control site	yes	no	unknown	high probability	unknown	no teatment	unknown	Probably present; unknown number of replicates
Viejo 1999 - Aquatic Botany 64: 131-149	El Truhán Inlet, Spain			field	observational	*Sargassum muticum*	4 habitats : tidepools with sargassum, low intertidal/subtidal with sargassum, intertidal with Fucus, low intertidal/subtidal with Cystoseira	yes	yes	replicated	high probability	unknown	no teatment	unknown	Probably present; Sargassum is in pools while Fucus is not (not comparable data); replicate plants are not real replicates (variability among areas from which the replicate plants have been collected is not estimated)
Zuljevic 2011 - Biological Invasions 13: 2303-2308	Croatia and Nice, France			lab/field	experimental	*Caulerpa taxifolia*	effects of a resident herbivore on the non-native seaweed fronds	yes	yes	replicated	high probability	independent	not applicable	random	Probably present, due to lack of controls