

## Biological mechanisms of marine invasions

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*Marine Ecology Progress Series 565: 251–268 (2017)*

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**Table S1:** Search parameters used in ISI Web of Science. General search terms used for all mechanisms were (non-native\* OR nonnative\* OR invasi\* OR introduc\* OR non-indigenous OR nonindigenous OR alien OR exotic OR invade\*) AND (estuar\* OR marine OR coastal OR ocean\* OR sea OR \*tidal), followed by mechanism-specific terms outlined below. Search results were then refined using Web of Science tools to those pertaining only to Marine and Freshwater Biology, and all research areas that were clearly not relevant (e.g., not biological) were excluded. All remaining papers were then individually evaluated for relevance. Over 2500 papers were evaluated for negative interactions alone.

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Mechanism	Search terms
Negative Interactions	AND (“biotic resistance” OR “invasion resistance” OR diversity OR “diversity invasibility” OR “empty niche*” OR “limiting similarity” OR “Darwin’s naturalization” OR pre-adaptation OR “enemy release” OR “enemy escape” OR “natural enem*” OR “native enem*” OR allelopath* OR “chemical defense*” OR “novel weapon*” OR “novel chemical*” OR predat* OR herbivor* OR parasit* OR compet* OR consum*)
Positive Interactions	AND (meltdown OR facilitat* OR mutual* OR “positive interact*” OR commensal* OR “positive species interact*”)
Invader Traits	AND (tolerance* OR tolerate* OR constrain* OR thermal OR heat OR cold OR freez* OR hypoxia OR copper OR “heavy metal” OR cadmium OR salinity OR desiccation OR nutrient* OR sedimentation OR antifouling OR UV OR ultraviolet OR deoxygenation OR dark* OR turbidity OR wave OR “growth rate” OR “rapid growth” OR maturation OR fecundity OR plasticity OR larval OR “body size” OR morphology OR reproduction OR “life history” OR metabolism OR behavior)  AND (trait*)
Post Introduction Evolution	AND (EICA OR evolut* OR “rapid evolut*” OR hybrid* OR bottleneck*)

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**Table S2:** Summary of literature (239 studies) that examined the role of negative interactions in mediating marine invasions. The invasive species examined in each study are organized alphabetically by phylum and the following information is listed: the type of study in which the invasion success of the species was examined ('E' for experimental, 'O' for observational, 'M' for modeling, 'MA' for meta-analysis, and 'R' for review), whether the negative interactions studied were consumption or competition, the focal consumptive or competitive interaction (herbivory, parasitism, predation, and single species-competition or competition through diversity [i.e. multi-species competition]), and if the invasion was limited or enhanced by the focal interaction. Studies are listed multiple times if they involved multiple species.

<b>Invasive Taxon</b>	<b>Invasive Phylum</b>	<b>Type of Study</b>	<b>Consumption or Competition</b>	<b>Focal Interaction</b>	<b>Invasion Enhanced or Limited</b>	<b>Citation</b>
<i>Marenzelleria arctica</i>	Annelida	E	Competition	Single-Species Competition	Enhanced	(Karlson et al. 2011)
<i>Marenzelleria cf. wireni</i>	Annelida	O	Competition	Single-Species Competition	Enhanced	(Essink 1999)
<i>Marenzelleria cf. wireni</i>	Annelida	O	Competition	Single-Species Competition	Enhanced	(Essink et al. 1998)
<i>Marenzelleria viridis</i>	Annelida	E	Competition	Single-Species Competition	Enhanced	(Kotta & Ólafsson 2003)
<i>Artemia franciscana</i>	Arthropoda	O	Consumption	Parasitism	Enhanced	(Georgiev et al. 2007)
<i>Balanus glandula</i>	Arthropoda	O	Competition	Single-Species Competition	Enhanced	(Vallarino & Elias 1997)
<i>Caprella mutica</i>	Arthropoda	E	Competition	Diversity (Multi-species Competition)	Enhanced	(Shucksmith et al. 2009)
<i>Carcinus maenas</i>	Arthropoda	O	Consumption	Parasitism	Enhanced	(Blakeslee et al. 2009)
<i>Carcinus maenas</i>	Arthropoda	E	Consumption	Predation	Limited	(deRivera et al. 2005)
<i>Carcinus maenas</i>	Arthropoda	E	Consumption	Predation	Limited	(Hunt & Yamada 2003)
<i>Carcinus maenas</i>	Arthropoda	O	Consumption & Competition	Predation & Single-Species Competition	Limited	(Jensen et al. 2002)
<i>Carcinus maenas</i>	Arthropoda	E	Consumption	Predation	Limited	(League-Pike & Shulman 2009)
<i>Carcinus maenas</i>	Arthropoda	E	Consumption	Predation	Limited	(Lohrer & Whitlatch 2002)
<i>Carcinus maenas</i>	Arthropoda	E	Competition	Single-Species Competition	Enhanced	(Matheson & Gagnon 2012)
<i>Carcinus maenas</i>	Arthropoda	E	Competition	Single-Species Competition	Enhanced	(McDonald et al. 2001)
<i>Carcinus maenas</i>	Arthropoda	E	Consumption & Competition	Predation & Single-Species Competition	Enhanced	(Rossong et al. 2006)
<i>Carcinus maenas</i>	Arthropoda	E	Competition	Single-Species Competition	Enhanced	(Schaefer & Zimmer 2013)
<i>Carcinus maenas</i>	Arthropoda	E	Consumption	Predation	Enhanced	(Smith 2004)
<i>Carcinus maenas</i>	Arthropoda	E	Competition	Single-Species Competition	Enhanced	(Williams et al. 2006)
<i>Cercopagis pengoi</i>	Arthropoda	O	Consumption	Predation	Limited	(Gorokhova 2006)
<i>Cercopagis pengoi</i>	Arthropoda	E	Consumption	Predation	Enhanced	(Lehtiniemi & Linden 2006)
<i>Charybdis japonica</i>	Arthropoda	E	Competition	Single-Species Competition	Enhanced	(Fowler et al. 2013)
<i>Echinogammarus ischnus</i>	Arthropoda	E	Consumption	Predation	Limited	(Kestrup et al. 2011)
<i>Hemigrapsus sanguineus</i>	Arthropoda	E	Competition	Diversity (Multi-species Competition)	Enhanced	(Altieri et al. 2010)

<i>Hemigrapsus sanguineus</i>	Arthropoda	O	Consumption	Parasitism	Enhanced	(Blakeslee et al. 2009)
<i>Hemigrapsus sanguineus</i>	Arthropoda	O	Consumption	Predation	Enhanced	(Brousseau et al. 2008)
<i>Hemigrapsus sanguineus</i>	Arthropoda	E	Consumption	Predation	Limited	(Heinonen & Auster 2012)
<i>Hemigrapsus sanguineus</i>	Arthropoda	E	Competition	Single-Species Competition	Enhanced	(Jensen et al. 2002)
<i>Hemigrapsus sanguineus</i>	Arthropoda	E	Competition	Single-Species Competition	Enhanced	(Landschoff et al. 2013)
<i>Hemigrapsus sanguineus</i>	Arthropoda	E	Competition	Single-Species Competition	Enhanced	(Lohrer & Whitlatch 2002)
<i>Hemigrapsus sanguineus</i>	Arthropoda	O	Consumption	Parasitism	Enhanced	(McDermott 2007)
<i>Hemigrapsus sanguineus</i>	Arthropoda	E	Competition	Single-Species Competition	Enhanced	(Rasch & O'Connor 2012)
<i>Hemigrapsus sanguineus</i>	Arthropoda	E	Competition	Single-Species Competition	Limited	(Steinberg & Epifanio 2011)
<i>Hemigrapsus takanoi</i>	Arthropoda	E	Competition	Single-Species Competition	Enhanced	(Landschoff et al. 2013)
<i>Palaemon macrodactylus</i>	Arthropoda	O	Competition	Single-Species Competition	Enhanced	(Béguer et al. 2011)
<i>Percnon gibbesi</i>	Arthropoda	E	Competition	Single-Species Competition	Limited	(Sciberras & Schembri 2008)
<i>Petrolisthes armatus</i>	Arthropoda	E	Consumption & Competition	Predation and Multi-Species Competition	Limited	(Hollebone & Hay 2007)
<i>Petrolisthes elongatus</i>	Arthropoda	O	Competition	Single-Species Competition	Enhanced	(Gregory et al. 2012)
<i>Pseudodiaptomus inopinus</i>	Arthropoda	O	Competition	Single-Species Competition	Enhanced	(Cordell et al. 2007)
<i>Tetraclita rubescens</i>	Arthropoda	E	Consumption & Competition	Predation and Single-Species Competition	Enhanced	(Sanford & Swezey 2008)
<i>Caulerpa filiformis</i>	Chlorophyta	E	Consumption	Herbivory	Limited	(Cummings & Williamson 2008)
<i>Caulerpa filiformis</i>	Chlorophyta	E	Consumption	Herbivory	Limited	(Davis et al. 2005)
<i>Caulerpa prolifera</i>	Chlorophyta	E	Consumption	Herbivory (allelopathy)	Enhanced	(Erickson et al. 2006)
<i>Caulerpa racemosa</i>	Chlorophyta	O	Competition	Single-Species Competition	Enhanced	(Bulleri et al. 2011)
<i>Caulerpa racemosa</i>	Chlorophyta	E	Consumption	Herbivory	Enhanced	(Cebrian et al. 2011)
<i>Caulerpa racemosa</i>	Chlorophyta	E	Competition	Single-Species Competition	Enhanced	(Ceccherelli et al. 2002)
<i>Caulerpa racemosa</i>	Chlorophyta	O	Competition	Single-Species Competition (allelopathy)	Limited	(Dumay et al. 2004)
<i>Caulerpa racemosa</i>	Chlorophyta	O	Consumption	Herbivory	Enhanced	(Ruitton et al. 2006)
<i>Caulerpa racemosa</i>	Chlorophyta	E	Competition	Single-Species Competition	Limited	(Tomas et al. 2011a)
<i>Caulerpa racemosa</i>	Chlorophyta	E	Consumption	Herbivory	Enhanced	(Tomas et al. 2011b)
<i>Caulerpa scalpelliformis</i>	Chlorophyta	E	Consumption	Herbivory	Limited	(Davis et al. 2005)
<i>Caulerpa sp.</i>	Chlorophyta	R	Competition	Single-Species Competition	Enhanced	(Occhipinti-Ambrogi & Savini 2003)
<i>Caulerpa taxifolia (Vahl) C. Agardh</i>	Chlorophyta	E	Competition	Single-Species Competition	Enhanced	(Ceccherelli et al. 2002)
<i>Caulerpa taxifolia</i>	Chlorophyta	E	Consumption	Herbivory	Limited	(Burfeind et al. 2009)

<i>Caulerpa taxifolia</i>	Chlorophyta	E	Competition	Single-Species Competition	Enhanced	(Ceccherelli & Cinelli 1997)
<i>Caulerpa taxifolia</i>	Chlorophyta	E	Competition	Single-Species Competition	Enhanced	(Ceccherelli & Sechi 2002)
<i>Caulerpa taxifolia</i>	Chlorophyta	E	Consumption	Herbivory	Limited	(Davis et al. 2005)
<i>Caulerpa taxifolia</i>	Chlorophyta	O	Competition	Single-Species Competition (allelopathy)	Limited	(Dumay et al. 2004)
<i>Caulerpa taxifolia</i>	Chlorophyta	E	Competition	Single-Species Competition (allelopathy)	Enhanced	(Ferrer et al. 1997)
<i>Caulerpa taxifolia</i>	Chlorophyta	E	Consumption	Herbivory	Enhanced	(Gollan & Wright 2006)
<i>Caulerpa taxifolia</i>	Chlorophyta	E	Consumption	Herbivory (allelopathy)	Enhanced	(Lemée et al. 1993)
<i>Caulerpa taxifolia</i>	Chlorophyta	E	Competition	Single-Species Competition	Enhanced	(Lemée et al. 1997)
<i>Caulerpa taxifolia</i>	Chlorophyta	E	Competition	Single-Species Competition	Enhanced	(Oakes et al. 2011)
<i>Caulerpa taxifolia</i>	Chlorophyta	E	Consumption	Herbivory (allelopathy)	Enhanced	(Weissflog et al. 2008)
<i>Cladophora sp.</i>	Chlorophyta	E	Consumption	Herbivory (allelopathy)	Enhanced	(Erickson et al. 2006)
<i>Codium fragile</i>	Chlorophyta	E	Consumption	Herbivory		(Lyons & Scheibling 2007)
<i>Codium fragile</i>	Chlorophyta	E	Consumption	Herbivory	Limited	(Lyons & Scheibling 2008)
<i>Codium fragile</i>	Chlorophyta	O	Consumption	Herbivory (allelopathy)	Enhanced	(Lyons et al. 2007)
<i>Codium fragile</i>	Chlorophyta	E	Consumption	Herbivory (allelopathy)	Enhanced	(Lyons et al. 2010)
<i>Codium fragile</i>	Chlorophyta	O	Competition	Diversity (Multi-species Competition)	Enhanced	(Mineur et al. 2008)
<i>Codium fragile</i>	Chlorophyta	E	Consumption	Herbivory	Enhanced	(Scheibling & Anthony 2001)
<i>Codium fragile</i>	Chlorophyta	E	Competition	Single-Species Competition	Enhanced	(Scheibling & Gagnon 2006)
<i>Codium fragile</i>	Chlorophyta	E	Consumption	Herbivory	Limited	(Scheibling et al. 2008)
<i>Codium fragile</i>	Chlorophyta	E	Competition	Single-Species Competition	Enhanced	(Thomsen & McGlathery 2007)
<i>Codium fragile spp. Tomentosoides</i>	Chlorophyta	E	Competition and Consumption	Herbivory and Single-Species Competition	Limited	(Sumi & Scheibling 2005)
<i>Codium fragile spp. Tomentosoides</i>	Chlorophyta	E	Consumption	Herbivory	Limited	(Trowbridge 2004)
<i>Codium fragile spp. Tomentosoides</i>	Chlorophyta	E, O	Consumption	Herbivory	Limited (lab), Enhanced (field)	(Trowbridge 1995)
<i>Codium fragile, C. fragile ssp. Tomentosoides</i>	Chlorophyta	O	consumption	Herbivory (allelopathy)	Enhanced	(Van Alstyne 2008)
<i>Spartina anglica</i>	Chlorophyta	E	Competition	Single-Species Competition	Enhanced	(Dethier & Hacker 2005)
<i>Spartina anglica</i>	Chlorophyta	E	Consumption	Herbivory	Limited	(Wu et al. 1999)
<i>Spartina densiflora</i>	Chlorophyta	E	Competition	Single-Species Competition	Limited	(Mateos-Naranjo et al. 2008b)
<i>Ulva lactuca</i>	Chlorophyta	E	Consumption	Herbivory (allelopathy)	Enhanced	(Erickson et al. 2006)
<i>Ascidia sydneiensis</i>	Chordata	E	Consumption	Predation	Limited	(Freestone et al. 2013)

<i>Asciidiella aspersa</i>	Chordata	E	Consumption	Predation	Enhanced	(Freestone et al 2013)
<i>Asciidiella aspersa</i>	Chordata	E	Consumption	Predation	Limited	(Osman & Whitlatch 2004)
<i>Asciidiella aspersa</i>	Chordata	E	Competition	Multi-species Competition	Limited & Enhanced (at different spatial scales)	(Stachowicz et al. 2002)
<i>Asciidiella aspersa</i>	Chordata	O	Competition	Multi-species Competition	Limited & Enhanced (at different spatial scales)	(Stachowicz & Byrnes 2006)
<i>Botrylloides diegensis</i>	Chordata	O	Competition	Single-Species Competition	Enhanced	(Berman et al. 1992)
<i>Botrylloides diegensis</i>	Chordata	E	Competition	Diversity (Multi-species Competition)	Limited	(Stachowicz et al. 1999)
<i>Botrylloides violaceus</i>	Chordata	E	Competition	Single-Species Competition	Enhanced	(Gittenberger & Moons 2011)
<i>Botrylloides violaceus</i>	Chordata	E	Consumption	Predation	Limited	(Grey 2010)
<i>Botrylloides violaceus</i>	Chordata	E	Competition	Multi-Species Competition	Limited & Enhanced (at different life stages)	(Grey 2011)
<i>Botrylloides violaceus</i>	Chordata	E	Consumption	Predation	Limited	(Simkanin et al. 2013)
<i>Botrylloides violaceus</i>	Chordata	E	Consumption	Predation	Enhanced	(Simoncini & Miller 2007)
<i>Botrylloides violaceus</i>	Chordata	E	Competition	Multi-Species Competition	Limited & Enhanced (at different spatial scales)	(Stachowicz et al. 2002)
<i>Botrylloides violaceus</i>	Chordata	O	Competition	Multi-Species Competition	Limited & Enhanced (at different spatial scales)	(Stachowicz & Byrnes 2006)
<i>Botryllus schlosseri</i>	Chordata	E	Consumption	Predation	Enhanced	(Freestone et al. 2013)
<i>Botrylloides violaceus</i>	Chordata	E	Consumption	Predation	Limited	(Osman & Whitlatch 2004)
<i>Cephalopholis argus</i>	Chordata	O	Competition	Single-Species Competition	Enhanced	(Meyer & Dierking 2011)
<i>Cephalopholis argus</i>	Chordata	E	Consumption	Parasitism	Enhanced	(Vermeij et al. 2009)
<i>Ciona intestinalis</i>	Chordata	E	Consumption	Predation	Limited	(Dumont et al 2009)
<i>Ciona intestinalis</i>	Chordata	E	Consumption	Predation	Limited	(Dumont et al. 2011a)
<i>Ciona intestinalis</i>	Chordata	E	Consumption	Predation	Limited	(Osman & Whitlatch 2004)
<i>Didemnum psammathodes</i>	Chordata	E	Consumption	Predation	Limited	(Freestone et al. 2013)
<i>Didemnum sp.</i>	Chordata	E	Competition	Single-Species Competition	Enhanced	(Osman & Whitlatch 2007)
<i>Didemnum vexillum</i>	Chordata	E	Consumption	Predation	Enhanced	(Freestone et al. 2013)
<i>Didemnum vexillum</i>	Chordata	E	Competition	Diversity (Multi-species Competition)	Limited	(Janiak et al. 2013)
<i>Diplosoma listerianum</i>	Chordata	E	Consumption	Predation	Enhanced	(Freestone et al. 2013)
<i>Diplosoma listerianum</i>	Chordata	E, O	Competition	Multi-species Competition	Limited & Enhanced (at different life stages)	(Stachowicz et al 2002)
Fish fauna (specific taxa not reported and exact number of species not ascertainable, however, a	Chordata	O	Competition	Diversity (Multi-species) Competition	Limited	(Ricciardi & Mottiar 2006)

minimum of 74 species  
were evaluated)

<i>Liza haematocheilus</i>	Chordata	O	Competition	Single-Species Competition	Enhanced	(Minos et al. 2010)
Multispecies	Chordata	E	Competition	Single-Species Competition	Enhanced	(Altman & Whitlatch 2007)
Multispecies	Chordata	O	Competition	Diversity (Multi-species Competition)	Limited	(Kalogirou et al. 2012)
<i>Neogobius melanostomus</i>	Chordata	O	Competition	Single-Species Competition	Enhanced	(Karlson et al. 2007)
<i>Oncorhynchus tshawytscha</i>	Chordata	O	Competition	Single-Species Competition	Enhanced	(Correa & Gross 2008)
<i>Oreochromis niloticus</i>	Chordata	O	Competition	Single-Species Competition	Enhanced	(Peterson et al. 2006)
<i>Phallusia nigra</i>	Chordata	E	Consumption	Predation	Limited	(Freestone et al. 2013)
<i>Plotosus lineatus</i>	Chordata	O	Consumption & Competition	Predation & Single-Species Competition	Enhanced	(Edelist et al. 2012)
<i>Pterois volitans</i>	Chordata	O	Consumption	Predation (allelopathy)	Enhanced	(Albins & Lyons 2012)
<i>Pterois volitans/miles</i>	Chordata	O	Consumption	Predation	Limited	(Mumby et al. 2011)
<i>Pyura praeputialis</i>	Chordata	E	Competition	Single-Species Competition	Enhanced	(Caro et al. 2011)
<i>Pyura praeputialis</i>	Chordata	E	Competition	Single-Species Competition	Enhanced	(Castilla et al. 2004)
<i>Pyura praeputialis</i>	Chordata	E	Consumption	Predation	Limited	(Castilla et al. 2004)
<i>Salmo trutta</i>	Chordata	O	Competition	Single-Species Competition	Enhanced	(Hasegawa & Maekawa 2008)
<i>Salmo trutta</i>	Chordata	E	Competition	Single-Species Competition	Enhanced	(Hasegawa & Maekawa 2009)
<i>Sphyraena chrysotaenia</i>	Chordata	O	Competition	Single-Species Competition	Enhanced	(Kalogirou et al. 2012)
<i>Styela canopus</i>	Chordata	E	Consumption	Predation	Limited	(Freestone et al. 2013)
<i>Styela clava</i>	Chordata	E	Consumption	Predation	Enhanced	(Freestone et al. 2013)
<i>Acabaria erythraea</i>	Cnidaria	O	Competition	Single-Species Competition	Enhanced	(Fine et al. 2005)
<i>Chromonephthea braziliensis</i>	Cnidaria	E	Consumption	Herbivory (allelopathy)	Enhanced	(Fleury et al. 2008)
<i>Mnemiopsis leidyi</i>	Cnidaria	O	Consumption	Predation	Limited	(Finenko et al. 2001)
<i>Mnemiopsis leidyi</i>	Cnidaria	E	Consumption	Predation	Limited	(Finenko et al. 2003)
<i>Mnemiopsis leidyi</i>	Cnidaria	O	Competition	Single-Species Competition	Enhanced	(Shiganova 1998)
<i>Moerisia lyonsi</i>	Cnidaria	E	Consumption	Predation	Enhanced	(Ma & Purcell 2005)
Multispecies	Cnidaria	O	Competition	Single-Species Competition	Enhanced	(Olenin & Leppäkoski 1999)
<i>Stereonephthya aff. curvata</i>	Cnidaria	E	Consumption & Competition	Predation & Single-Species Competition (allelopathy)	Enhanced	(Lages et al. 2006)
<i>Tubastraea coccinea</i>	Cnidaria	E	Consumption & Competition	Predation & Single-Species Competition	Enhanced	(Lages et al. 2010a)
<i>Tubastraea coccinea</i>	Cnidaria	O	Consumption &	Predation & Single-Species	Enhanced	(Lages et al. 2010b)

			Competition	Competition		
<i>Tubastraea coccinea</i>	Cnidaria	E	Competition	Single-Species Competition (allelopathy)	Enhanced	(Lages et al. 2012)
<i>Tubastraea coccinea</i>	Cnidaria	E	Consumption	Predation (allelopathy)	Enhanced	(Moreira & Creed 2012)
<i>Tubastraea tagusensis</i>	Cnidaria	E	Consumption & Competition	Predation & Single-Species Competition	Enhanced	(Lages et al. 2010a)
<i>Tubastraea tagusensis</i>	Cnidaria	O	Consumption & Competition	Predation & Single-Species Competition	Enhanced	(Lages et al. 2010b)
<i>Tubastraea tagusensis</i>	Cnidaria	E	Competition	Competition (allelopathy)	Enhanced	(Lages et al. 2012)
<i>Tubastraea tagusensis</i>	Cnidaria	E	Consumption	Predation (allelopathy)	Enhanced	(Moreira & Creed 2012)
<i>Mnemiopsis leidyi</i>	Ctenophora	E	Consumption	Predation	Limited	(Hosia & Titelman 2011)
<i>Mnemiopsis leidyi</i>	Ctenophora	R	Consumption & Competition	Predation & Single-Species Competition	Enhanced	(Purcell et al. 2001)
<i>Mnemiopsis leidyi</i>	Ctenophora	O	Competition	Single-Species Competition	Limited	(Riisgard et al. 2010)
<i>Mnemiopsis leidyi</i>	Ctenophora	O	Consumption	Parasitism	Limited	(Selander et al. 2010)
<i>Centrostephanus rodgersii</i>	Echinodermata	E	Competition	Single-Species Competition	Enhanced	(Strain & Johnson 2009)
<i>Centrostephanus rodgersii</i>	Echinodermata	E	Competition	Single-Species Competition	Enhanced	(Strain et al. 2013)
<i>Bugula neritina</i>	Ectoprocta	E	Competition	Single-Species Competition	Enhanced	(Clark & Johnston 2005)
<i>Bugula neritina</i>	Ectoprocta	E	Consumption	Predation	Limited	(Dumont et al. 2009)
<i>Bugula neritina</i>	Ectoprocta	E	Consumption	Predation	Limited	(Dumont et al. 2011b)
<i>Membranipora membranacea</i>	Ectoprocta	O	Competition	Single-Species Competition	Enhanced	(Berman et al. 1992)
<i>Membranipora membranacea</i>	Ectoprocta	O	Competition	Single-Species Competition	Enhanced	(Yorke & Metaxas 2012)
<i>Styela clava</i>	Ectoprocta	O	Competition	Single-Species Competition	Enhanced	(Berman et al. 1992)
<i>Watersipora subtorquata</i>	Ectoprocta	E	Competition	Single-Species Competition	Enhanced	(Clark & Johnston 2009)
<i>Watersipora subtorquata</i>	Ectoprocta	E	Competition	Multi-Species Competition	Enhanced	(Clark & Johnston 2011)
<i>Phragmites australis</i>	Magnoliophyta	E	Consumption	Herbivory (allelopathy)	Enhanced	(Hendricks et al. 2011)
<i>Phragmites australis</i>	Magnoliophyta	E	Competition	Single-Species Competition	Enhanced	(Minchinton 2002)
<i>Rhizophora mangle L.</i>	Magnoliophyta	O	Consumption & Competition	Single-Species Competition & Herbivory	Enhanced	(Cox & Allen 1999)
<i>Spartina alterniflora</i>	Magnoliophyta	O	Consumption	Herbivory	Limited	(Garcia-Rossi et al. 2003)
<i>Spartina alterniflora-foliosa hybrids</i>	Magnoliophyta	E	Consumption	Herbivory	Enhanced	(Grosholz 2010)
<i>Spartina anglica</i>	Magnoliophyta	E	Competition	Single-Species Competition	Enhanced	(Li et al. 2011a)
<i>Zostera japonica</i>	Magnoliophyta	M	Competition	Single-Species Competition	Enhanced	(Almasi & Eldridge 2008)

<i>Zostera japonica</i>	Magnoliophyta	E	Competition	Single-Species Competition	Enhanced	(Bando 2006)
<i>Zostera japonica</i>	Magnoliophyta	O	Competition	Single-Species Competition	Enhanced	(Ruesink et al. 2010)
<i>Aplysia dactylomela</i>	Mollusca	O	Competition	Single-Species Competition	Enhanced	(Pasternak & Galil 2010)
<i>Batillaria attramentaria</i>	Mollusca	E	Competition	Single-Species Competition	Enhanced	(Byers 2000)
<i>Batillaria attramentaria</i>	Mollusca	O	Competition	Single-Species Competition	Enhanced	(Byers 2005)
<i>Batillaria attramentaria</i>	Mollusca	O	Consumption	Parasitism	Enhanced	(Torchin et al. 2005)
<i>Crassostrea ariakensis</i>	Mollusca	E	Consumption	Predation	Limited	(Fulford et al. 2011)
<i>Crassostrea gigas</i>	Mollusca	O	Competition	Diversity (Multi-species Competition)	Enhanced	(Klinger et al. 2006)
<i>Crassostrea gigas</i>	Mollusca	O	Consumption	Parasitism	Enhanced	(Krakau et al. 2006)
<i>Crassostrea gigas</i>	Mollusca	E	Consumption & Competition	Predation & Multi-Species Competition	Limited	(Ruesink 2007)
<i>Crassostrea gigas</i>	Mollusca	E	Consumption	Parasitism	Limited	(Thieltges et al. 2009)
<i>Crassostrea gigas</i>	Mollusca	R	Consumption	Predation	Enhanced	(Troost 2010)
<i>Crassostrea gigas</i>	Mollusca	E	Consumption	Predation	Enhanced	(Troost et al. 2008)
<i>Crassostrea gigas</i>	Mollusca	O	Consumption	Predation	Enhanced	(Weerman et al. 2014)
<i>Crassostrea gigas</i>	Mollusca	E	Consumption	Predation	Limited	(Wilkie & Bishop 2012)
<i>Crassostrea gigas</i>	Mollusca	O	Consumption	Parasitism	Enhanced	(Wilkie et al. 2013)
<i>Crepidula fornicata</i>	Mollusca	E	Consumption	Parasitism	Enhanced, but Limited by abiotic factors	(Thieltges et al. 2004)
<i>Crepidula fornicata</i>	Mollusca	E	Competition	Single-Species Competition	Enhanced	(Blanchard et al. 2008)
<i>Crepidula fornicata</i>	Mollusca	O	Consumption	Parasitism	Limited	(Le Cam & Viard 2011)
<i>Crepidula fornicata</i>	Mollusca	O	Consumption	Predation	Enhanced	(Pechenik et al. 2010)
<i>Crepidula fornicata</i>	Mollusca	E	Competition	Single-Species Competition	Enhanced	(Thieltges 2005)
<i>Cyclope neritea</i>	Mollusca	E	Consumption	Parasitism	Enhanced	(Bachelet et al. 2004)
<i>Dreissena polymorpha</i>	Mollusca	E	Consumption	Predation	Limited	(Carlsson et al. 2011)
<i>Ensis americanus</i>	Mollusca	E	Consumption	Predation	Limited	(Freudentahl et al. 2010)
<i>Ensis americanus</i>	Mollusca	O	Consumption	Parasitism	Enhanced	(Krakau et al. 2006)
<i>Haliotis discus hannai</i>	Mollusca	E	Consumption & Competition	Predation & Single-Species Competition	Limited	(Stotz et al. 2006)
<i>Haminoea cyanomarginata</i>	Mollusca	O	Consumption	Predation (allelopathy)	Enhanced	(Mollo et al. 2008)
<i>Isognomon bicolor</i>	Mollusca	E	Consumption	Predation	Enhanced	(Lóez et al. 2010)
<i>Lithophaga aristata</i>	Mollusca	O	Competition	Single-Species Competition	Enhanced	(Ignacio et al. 2012)
<i>Littorina littorea</i>	Mollusca	E	Consumption	Predation	Limited	(Harley et al. 2013)
<i>Macoma balthica</i>	Mollusca	E	Consumption	Predation	Limited	(Ejdung et al 2009)



<i>Melibe viridis</i>	Mollusca	O	Consumption	Predation (allelopathy)	Enhanced	(Mollo et al. 2008)
<i>Musculista senhousia</i>	Mollusca	O	Consumption	Predation	Limited	(Cheng & Hovel 2010)
<i>Musculista senhousia</i>	Mollusca	E	Consumption	Predation	Limited	(Kushner & Hovel 2006)
<i>Musculista senhousia</i>	Mollusca	O	Consumption	Predation	Limited	(Marshall 2009)
<i>Musculista senhousia</i>	Mollusca	O AND E	Consumption	Parasitism	Enhanced	(Miller et al. 2008)
<i>Musculista senhousia</i>	Mollusca	E	Competition	Single-Species Competition	Limited	(Reusch & Williams 1999)
<i>Musculista senhousia</i>	Mollusca	E	Consumption	Predation	Limited	(Reusch 1998)
<i>Musculista senhousia</i>	Mollusca	O	Competition	Single-Species Competition	Enhanced	Mistri et al. 2004)
<i>Mytilus galloprovincialis</i>	Mollusca	O	Competition	Single-Species Competition	Limited	(Bownes & McQuaid 2006)
<i>Mytilus galloprovincialis</i>	Mollusca	O	Consumption & Competition	Predation, Parasitism and Single-Species Competition	Enhanced	(Branch & Steffani 2004)
<i>Mytilus galloprovincialis</i>	Mollusca	O	Consumption	Parasitism	Enhanced	(Calvo-Ugarteburu & McQuaid 1998)
<i>Mytilus galloprovincialis</i>	Mollusca	O	Competition	Single-Species Competition	Enhanced	(Erlandsson et al. 2006)
<i>Mytilus galloprovincialis</i>	Mollusca	O	Consumption	Predation	Limited	(Morton 2012)
<i>Mytilus galloprovincialis</i>	Mollusca	E	Competition	Single-Species Competition	Enhanced	(Ruiz Sebastian et al. 2002)
<i>Mytilus galloprovincialis</i>	Mollusca	E	Competition	Single-Species Competition	Enhanced	(Shinen & Morgan 2009)
<i>Mytilus galloprovincialis</i>	Mollusca	E	Consumption	Predation	Limited	(Shinen et al. 2009)
<i>Mytilus galloprovincialis</i>	Mollusca	O	Competition	Single-Species Competition	Enhanced	(Steffani & Branch 2003a)
<i>Mytilus galloprovincialis</i>	Mollusca	O	Competition	Single-Species Competition	Enhanced	(Steffani & Branch 2003b)
<i>Mytilus galloprovincialis</i>	Mollusca	E	Competition	Single-Species Competition	Enhanced	(Steffani & Branch 2003c)
<i>Mytilus galloprovincialis</i>	Mollusca	O	Consumption	Parasitism	Limited	(Zardi et al. 2008)
<i>Ocenebrellus inornatus</i>	Mollusca	E	Competition	Single-Species Competition	Enhanced	(Martel et al. 2004a)
<i>Ovatella myosotis</i>	Mollusca	E	Competition	Single-Species Competition	Limited	(Berman & Carlton 1991)
<i>Perna perna</i>	Mollusca	E	Consumption	Predation	Limited	(López et al. 2010)
<i>Potamopyrgus antipodarum</i>	Mollusca	O	Consumption	Parasitism	Enhanced	(Gérard et al. 2003)
<i>Rapana venosa</i>	Mollusca	E	Consumption	Predation	Limited	(Harding 2003)
<i>Ruditapes philippinarum</i>	Mollusca	E	Consumption	Predation	Limited	(Bidegain & Antonio-Juanes 2013)
<i>Ruditapes philippinarum</i>	Mollusca	E	Consumption	Parasitism	Enhanced	(Dang et al. 2009)
<i>Syphonota geographica</i>	Mollusca	O	Consumption	Predation (allelopathy)	Enhanced	(Mollo et al. 2008)
<i>Terebrasabella heterouncinata</i>	Mollusca	O	Consumption	Predation	Enhanced	(Kuris & Culver 1999)

<i>Tiostrea lutaria</i>	Mollusca	E	Consumption	Predation	Enhanced	(Richardson et al. 1993)
<i>Urosalpinx cinerea</i>	Mollusca	E	Consumption	Predation	Enhanced	(Kimbrow et al. 2009)
<i>Xenostrobus seams</i>	Mollusca	E	Consumption	Predation	Enhanced	(Veiga et al. 2011)
<i>Xenostrobus securis</i>	Mollusca	E	Competition	Single-Species Competition	Limited	(Babarro & Abad 2013)
<i>Colpomenia peregrina</i>	Phaeophyta	O	Competition	Diversity (Multi-species Competition)	Enhanced	(Mineur et al. 2008)
<i>Fucus evanescens</i>	Phaeophyta	E	Consumption	Herbivory (allelopathy)	Enhanced	(Forslund et al. 2010)
<i>Fucus evanescens</i>	Phaeophyta	E	Consumption	Herbivory	Enhanced	(Wikström et al. 2006)
<i>Fucus serratus</i>	Phaeophyta	E	Competition	Single-Species Competition	Enhanced	(Arrontes 2002)
<i>Sargassum muticum</i>	Phaeophyta	E	Competition	Single-Species Competition	Enhanced	(Britton-Simmons & Abbott 2008)
<i>Sargassum muticum</i>	Phaeophyta	E	Competition	Single-Species Competition	Limited	(Britton-Simmons 2006)
<i>Sargassum muticum</i>	Phaeophyta	E	Consumption	Herbivory	Limited	(Britton-Simmons et al. 2011)
<i>Sargassum muticum</i>	Phaeophyta	E	Consumption	Predation	Limited	(Byers 2002)
<i>Sargassum muticum</i>	Phaeophyta	E	Consumption	Herbivory	Enhanced	(Cacabelos et al. 2010)
<i>Sargassum muticum</i>	Phaeophyta	O	Competition	Single-Species Competition	Enhanced	(Cacabelos et al. 2013)
<i>Sargassum muticum</i>	Phaeophyta	O	Competition	Single-Species Competition	Enhanced	(Engelen et al. 2008)
<i>Sargassum muticum</i>	Phaeophyta	E	Consumption	Herbivory	Enhanced	(Engelen et al. 2011)
<i>Sargassum muticum</i>	Phaeophyta	O	Competition	Diversity (Multi-species Competition)	Enhanced	(Klinger et al. 2006)
<i>Sargassum muticum</i>	Phaeophyta	O	Competition	Diversity (Multi-species Competition)	Enhanced	(Mineur et al. 2008)
<i>Sargassum muticum</i>	Phaeophyta	E	Consumption	Herbivory	Enhanced	(Monteiro et al. 2009)
<i>Sargassum muticum</i>	Phaeophyta	E	Consumption	Herbivory	Enhanced	(Monteiro et al. 2009)
<i>Sargassum muticum</i>	Phaeophyta	E	Consumption	Herbivory	Limited	(Monteiro et al. 2012)
<i>Sargassum muticum</i>	Phaeophyta	E	Competition	Single-Species Competition	Enhanced	(Plouguerne et al. 2008)
<i>Sargassum muticum</i>	Phaeophyta	E	Consumption	Herbivory	Limited	(Sjötun et al. 2007)
<i>Sargassum muticum</i>	Phaeophyta	E	Competition	Single-Species Competition	Enhanced	(Staehr et al. 2000)
<i>Sargassum muticum</i>	Phaeophyta	E	Consumption	Herbivory	Limited	(Strong et al. 2009)
<i>Sargassum muticum</i>	Phaeophyta	O	Consumption	Herbivory	Enhanced	(Trowbridge et al. 2013)
<i>Sargassum muticum</i>	Phaeophyta	E	Consumption	Herbivory	Limited	(Vaz-Pinto et al. 2013)
<i>Sargassum muticum</i>	Phaeophyta	O	Consumption	Herbivory	Limited	(Viejo 1999)
<i>Sargassum muticum</i>	Phaeophyta	E & O	Competition	Multi-species Competition	Limited & Enhanced (at different life stages)	(White & Shurin 2007)
<i>Sargassum muticum</i>	Phaeophyta	E	Consumption	Consumption	Limited	(Yun et al. 2012)
<i>Undaria pinnatifida</i>	Phaeophyta	E	Competition	Single-Species Competition	Limited	(Floc'h et al. 1996)

<i>Celtodoryx girardae</i>	Porifera	O	Competition	Single-Species Competition	Enhanced	(Perez et al. 2006)
<i>Cliona orientalis</i>	Porifera	E	Competition	Single-Species Competition	Enhanced	(Schönberg & Wilkinson 2001)
<i>Pseudomonas fluorescens</i>	Proteobacteria	E	Consumption	Predation	Limited	(Christoffersen et al. 1995)
<i>Trichosphaerium sieboldi</i>	Protozoa	E	Consumption	Herbivory	Enhanced	(Rogerson et al. 1998)
<i>Acanthophora spicifera</i>	Rhodophyta	O	Competition	Single-Species Competition	Enhanced	(Lapointe & Bedford 2011)
<i>Acanthophora spicifera</i>	Rhodophyta	E	Consumption	Herbivory	Limited	(Stimson et al. 2001)
<i>Acanthophora spicifera</i>	Rhodophyta	E	Consumption	Herbivory	Enhanced	(Vermeij et al. 2009)
<i>Acrothamnion preissii</i>	Rhodophyta	O	Competition	Single-Species Competition	Enhanced	(Piazzi & Cinelli 2000)
<i>Acrothamnion preissii</i>	Rhodophyta	E	Consumption	Herbivory	Enhanced	(Tomas et al. 2011b)
<i>Asparagopsis armata</i>	Rhodophyta	O	Competition	Diversity (Multi-species Competition)	Enhanced	(Mineur et al. 2008)
<i>Bonnemaisonia hamifera</i>	Rhodophyta	O	Competition	Diversity (Multi-species Competition)	Enhanced	(Mineur et al. 2008)
<i>Bonnemaisonia hamifera</i>	Rhodophyta	E	Competition	Single-Species Competition (allelopathy)	Enhanced	(Svensson et al. 2013)
<i>Gracilaria vermiculophylla</i>	Rhodophyta	E	Consumption	Herbivory	Enhanced	(Hammann et al. 2013)
<i>Gracilaria vermiculophylla</i>	Rhodophyta	E	Consumption	Herbivory	Limited	(Nejrup & Pedersen 2010)
<i>Gracilaria vermiculophylla</i>	Rhodophyta	E	Consumption	Herbivory	Enhanced	(Nejrup et al. 2012)
<i>Gracilaria vermiculophylla</i>	Rhodophyta	E	Competition	Single-Species Competition	Enhanced	(Thomsen & McGlathery 2007)
<i>Grateloupia turuturu</i>	Rhodophyta	E	Competition	Single-Species Competition	Enhanced	(Plouguerne et al. 2008)
<i>Hypnea musciformis</i>	Rhodophyta	E	Consumption	Herbivory	Enhanced	(Vermeij et al. 2009)
<i>Lophocladia lallemandii</i>	Rhodophyta	E	Consumption	Herbivory	Enhanced	(Cebrian et al. 2011)
<i>Lophocladia lallemandii</i>	Rhodophyta	O and E	Competition	Single-Species Competition	Enhanced	(Tomas et al. 2011a)
<i>Lophocladia lallemandii</i>	Rhodophyta	O and E	Competition	Single-Species Competition	Enhanced	(Tomas et al. 2011a)
<i>Lophocladia lallemandii</i>	Rhodophyta	E	Consumption	Herbivory	Enhanced	(Tomas et al. 2011b)
<i>Mastocarpus stellatus</i>	Rhodophyta	O	consumption	Herbivory (allelopathy)	Enhanced	(Yun & Molis 2012)
<i>Neosiphonia harveyi</i>	Rhodophyta	O	Competition	Diversity (Multi-species Competition)	Enhanced	(Mineur et al. 2008)
<i>Womersleyella setacea</i>	Rhodophyta	E	Consumption	Herbivory	Enhanced	(Cebrian et al. 2011)
<i>Womersleyella setacea</i>	Rhodophyta	O	Competition	Single-Species Competition	Enhanced	(Piazzi & Cinelli 2000)
<i>Womersleyella setacea</i>	Rhodophyta	O and E	Competition	Single-Species Competition	Enhanced	(Tomas et al. 2011a)
<i>Womersleyella setacea</i>	Rhodophyta	O and E	Competition	Single-Species Competition	Enhanced	(Tomas et al. 2011a)

<i>Womersleyella setacea</i>	Rhodophyta	E	Consumption	Herbivory	Enhanced	(Tomas et al. 2011b)
Multispecies	Various	E	Competition	Single-Species Competition	Limited	(Lindsay et al. 2006)
Multispecies	Various	O	Competition	Single-Species Competition	Enhanced	(Paavola et al.2005)
Multispecies	Various	MA/R	Competition	Diversity (Multi-species) Competition	Enhanced	(Ricciardi & Atkinson 2004)
Multispecies	Various	MA	Consumption & Competition	Predation, Herbivory, Single-Species Competition and Diversity (Multi-species Competition)	Enhanced/Limited	(Kimbrow et al. 2013)
N/A (modeling)	N/A	M	Competition	Diversity (Multi-species Competition)	Enhanced	(Dunstan & Johnson 2007)
N/A (used native species to simulate invasion)	N/A	E	Competition	Diversity (Multi-species Competition)	Limited	(Arenas et al. 2006)
N/A (used native species to simulate invasion)	N/A	O	Competition	Diversity (Multi-species Competition)	Enhanced	(Dunstan & Johnson 2004)

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**Table S3:** Summary of literature (48 studies) that examined the role of positive interactions in mediating marine invasions. The invasive species examined in each study are organized alphabetically by phylum and the following information is listed: the type of study in which the invasion success of the species was examined ('E' for experimental, 'O' for observational, 'M' for modeling, 'MA' for meta-analysis, and 'R' for review), whether or not the species was facilitated (Yes or No), the type of facilitation (indirect, direct, or NA if no facilitation occurred), and the direction of the facilitation (invasive species facilitating an invasive species [invasive → invasive], a native species facilitating an invasive species [native → invasive], or NA if no facilitation occurred). Studies are listed multiple times if they involved multiple species.

Invasive Taxon	Invasive Phylum	Type of Study	Facilitation?	Type of Facilitation	Direction of Facilitation	Citation
<i>Ficopomatus enigmaticus</i>	Annelida	E	Yes	direct	Invasive → Invasive	(Heiman & Micheli 2010)
<i>Ficopomatus enigmaticus</i>	Annelida	O	Yes	direct	Invasive → Invasive	(Heiman et al. 2008)
<i>Carcinus maenas</i>	Arthropoda	E	No	N/A	N/A	(Griffen et al. 2008)
<i>Carcinus maenas</i>	Arthropoda	O	Yes	Indirect	Invasive → Invasive	(Locke et al. 2007)
<i>Carcinus maenas</i>	Arthropoda	E	Yes	indirect	Native → Invasive	(Grosholz 2005)
<i>Chthamalus proteus</i>	Arthropoda	E	Yes	indirect	Native → Invasive	(Zabin & Altieri 2007)
<i>Gammarus tigrinus</i>	Arthropoda	E	Yes	indirect	Invasive → Invasive	(Kotta et al. 2010)
<i>Hemigrapsus sanguineus</i>	Arthropoda	E	No	N/A	N/A	(Griffen et al. 2008)
<i>Hemigrapsus sanguineus</i>	Arthropoda	E	Yes	direct	Native → Invasive	(Altieri et al. 2010)
<i>Sphaeroma quoianum</i>	Arthropoda	O	Yes	direct	Invasive → Invasive	(Davidson et al. 2008)
<i>Undaria pinnatifida</i>	Bacillariophyta	E	Yes	direct	Native → Invasive	(Thompson & Schiel 2012)
<i>Caulerpa racemosa</i>	Chlorophyta	R	Yes	indirect	Native → Invasive	(Bulleri et al. 2009)
<i>Caulerpa racemosa</i>	Chlorophyta	E	Yes	direct	Native → Invasive	(Bulleri & Benedetti-Cecchi 2008)
<i>Codium fragile</i>	Chlorophyta	E	Yes	indirect	Invasive → Invasive	(Scheibling & Gagnon 2006)
<i>Codium fragile</i>	Chlorophyta	E	Yes	indirect	Invasive → Invasive	(Levin et al. 2002)
<i>Codium fragile</i>	Chlorophyta	E	Yes	indirect	Native → Invasive	(Lyons & Scheibling 2008)
<i>Codium fragile</i>	Chlorophyta	O	Yes	indirect	Invasive → Invasive	(Watanabe et al. 2010)
<i>Codium fragile</i> ssp <i>tomentosoides</i>	Chlorophyta	E	No	N/A	N/A	(Thomsen & McGlathery 2005)
<i>Codium fragile</i> ssp <i>tomentosoides</i>	Chlorophyta	R	Yes	indirect	Invasive → Invasive	(Chapman 1998)
<i>Locustella pryeri</i>	Chordata	O	Yes	direct	Invasive → Invasive	(Ma et al. 2014)
<i>Plotosus lineatus</i>	Chordata	O	Yes	direct	Invasive → Invasive	(Edelist et al. 2012)
<i>Styela clava</i>	Chordata	O	Yes	Indirect	Invasive → Invasive	(Locke et al. 2007)
<i>Carijoa riisei</i>	Cnidaria	O	Yes	direct	Native → Invasive	(Kahng & Grigg 2005)
<i>Oculina patagonica</i>	Cnidaria	O	Yes	indirect	Native → Invasive	(Coma et al. 2011)
<i>Membranipora membranacea</i>	Ectoprocta	R	Yes	indirect	Invasive → Invasive	(Chapman 1998)
<i>Membranipora membranacea</i>	Ectoprocta	E	Yes	indirect	Invasive → Invasive	(Scheibling & Gagnon 2006)
<i>Membranipora membranacea</i>	Ectoprocta	E	Yes	indirect	Invasive → Invasive	(Levin et al. 2002)
<i>Membranipora membranacea</i>	Ectoprocta	O	Yes	direct	Native → Invasive	(Yorke & Metaxas 2012)

<i>Membranipora membranacea</i>	Ectoprocta	O	Yes	indirect	Invasive → Invasive	(Watanabe et al. 2010)
<i>Membranipora membranacea</i>	Ectoprocta	O	Yes	direct	Native → Invasive	(Saunders & Metaxas 2009)
<i>Schizoporella errata</i>	Ectoprocta	O	Yes	direct	Invasive → Invasive	(Zabin et al. 2010)
<i>Watersipora subtorquata</i>	Ectoprocta	E	Yes	direct	Invasive → Invasive	(Floerl et al. 2004)
<i>Spartina alterniflora</i>	Magnoliophyta	E	No	N/A	N/A	(Zhi et al. 2007)
<i>Spartina alterniflora</i>	Magnoliophyta	E	No	N/A	N/A	(Lambrinos & Bando 2008)
<i>Spartina alterniflora</i>	Magnoliophyta	O	Yes	direct	Invasive → Invasive	(Ma et al. 2014)
<i>Spartina alterniflora</i>	Magnoliophyta	E	No	N/A	N/A	(He et al. 2012)
<i>Spartina alterniflora-foliolosa</i> hybrids	Magnoliophyta	E	Yes	direct	Native → Invasive	(Eberl 2011)
<i>Spartina anglica</i>	Magnoliophyta	E	No	N/A	N/A	(Zhi et al. 2007)
<i>Zostera japonica</i>	Magnoliophyta	E	Yes	direct	Invasive → Invasive	(Tsai et al. 2010)
<i>Batillaria attramentaria</i>	Mollusca	E	Yes	both	Invasive → Invasive	(Wonham et al. 2005)
<i>Batillaria australis</i>	Mollusca	E	Yes	both	Native → Invasive	(Thomsen et al. 2012)
<i>Crassostrea ariakensis</i>	Mollusca	E	Yes	direct	Native → Invasive	(Barnes et al. 2010)
<i>Crassostrea gigas</i>	Mollusca	E	Yes	direct	Native → Invasive	(Diederich 2006)
<i>Crassostrea gigas</i>	Mollusca	E	Yes	indirect	Native → Invasive	(Eschweiler & Christensen 2011)
<i>Crassostrea gigas</i>	Mollusca	E	Yes	direct	Native → Invasive	(Ruesink 2007)
<i>Crassostrea gigas</i>	Mollusca	E	Yes	direct	Invasive → Invasive	(Lang & Buschbaum 2010)
<i>Gemma gemma</i>	Mollusca	E	Yes	indirect	Invasive → Invasive	(Grosholz 2005)
<i>Isognomon bicolor</i>	Mollusca	E	Yes	direct	Native → Invasive	(Lopez & Coutinho 2010)
<i>Mytilus galloprovincialis</i>	Mollusca	E	Yes	direct	Native → Invasive	(Rius & McQuaid 2006)
<i>Mytilus galloprovincialis</i>	Mollusca	E	Yes	direct	Native → Invasive	(Rius & McQuaid 2009)
<i>Rapana venosa</i>	Mollusca	E	No	N/A	N/A	(Munari & Mistri 2011)
<i>Scapharca inaequalis</i>	Mollusca	E	No	N/A	N/A	(Munari & Mistri 2011)
<i>Tapes philippinarum</i>	Mollusca	E	No	N/A	N/A	(Munari & Mistri 2011)
<i>Xenostrobus securis</i>	Mollusca	E	Yes	indirect	Native → Invasive	(Veiga et al. 2011)
<i>Rhizophora mangle</i>	Phaeophyta	O	Yes	direct	Invasive → Invasive	(Demopoulos & Smith 2010)
<i>Sargassum muticum</i>	Phaeophyta	E	Yes	indirect	Native → Invasive	(Sánchez & Fernandez 2006)
<i>Sargassum muticum</i>	Phaeophyta	E	Yes	direct	Invasive → Invasive	(Lang & Buschbaum 2010)
<i>Sargassum muticum</i>	Phaeophyta	O	Yes	direct	Both	(White & Orr 2011)
<i>Acanthophora spicifera</i>	Rhodophyta	O	Yes	direct	Native → Invasive	(Avila et al. 2012)
N/A (modeling)	N/A	M	No	N/A	N/A	(Wonham & Pachepsky 2006)

**Table S4:** Summary of primary literature (137 studies) that examined the role of invader traits in mediating marine invasions. Traits are organized in one of three major categories: Life History (life history traits), Management (stress tolerance traits related to invasive species management strategies) and Tolerance (non-management stress tolerance traits). If a trait did not fall under these categories, it is labeled as Miscellaneous, and if many traits were examined concurrently, entries are labeled as Various. Studies are listed multiple times if they involved multiple species or traits. Specific traits examined are listed

under the specific trait/stress tolerance column. The type of study used to examine each trait and species ('E' for experimental, 'O' for observational, 'M' for modeling, 'MA' for meta-analysis, and 'R' for review) is also listed.

Trait Category	Specific Trait/Stress Tolerance	Invasive Taxon	Invasive Phylum	Type of Study	Citation
Life History	asexual reproduction	<i>Caulerpa taxifolia</i>	Chlorophyta	O	(Wright 2005)
Life History	asynchronous, continuous spawning	<i>Carijoa riisei</i>	Cnidaria	O	(Kahng et al. 2008)
Life History	body size	<i>Crassostrea ariakensis</i>	Mollusca	O	(Bishop et al. 2006)
Life History	body size	<i>Asparagopsis armata</i>	Rhodophyta	O	(Boudouresque & Verlaque 2002)
Life History	body size	<i>Caulerpa racemosa</i>	Chlorophyta	O	(Boudouresque & Verlaque 2002)
Life History	body size	<i>Caulerpa taxifolia</i>	Chlorophyta	O	(Boudouresque & Verlaque 2002)
Life History	body size	<i>Sargassum muticum</i>	Phaeophyta	O	(Boudouresque & Verlaque 2002)
Life History	body size	<i>Styopodium schimperi</i>	Phaeophyta	O	(Boudouresque & Verlaque 2002)
Life History	body size	<i>Mytilus galloprovincialis</i>	Mollusca	O	(Dutton & Hofmann 2008)
Life History	body size	<i>Palaemon macrodactylus</i>	Arthropoda	O	(Guadalupe Vázquez et al. 2012)
Life History	body size	<i>Mnemiopsis leidyi</i>	Ctenophora	O	(Javidpour et al. 2009)
Life History	body size	<i>Ocinebrellus inornatus</i>	Mollusca	O	(Martel et al. 2004b)
Life History	body size	<i>Grateloupia doryphora</i>	Rhodophyta	O	(Simon et al. 2001)
Life History	body size	<i>Chthamalus proteus</i>	Arthropoda	O	(Zabin et al. 2007)
Life History	brooding	<i>Tarebia granifera</i>	Mollusca	O	(Miranda et al. 2011)
Life History	dense tissue in tussock	<i>Spartina densiflora</i>	Magnoliophyta	O	(Javier et al. 2005)
Life History	direct development	93 Mollusca sp.	Mollusca	M	(Miller et al. 2007a)
Life History	early maturation	<i>Crassostrea ariakensis</i>	Mollusca	E	(Bishop & Peterson 2006)
Life History	early maturation	<i>Spartina alterniflora</i>	Magnoliophyta	E	(Davis 2005)
Life History	early maturation	<i>Charybdis hellerii</i>	Arthropoda	O	(Dineen et al. 2001)
Life History	early maturation	<i>Nuttallia obscurata</i>	Mollusca	E	(Dudas & Dower 2006)
Life History	early maturation	<i>Carijoa riisei</i>	Cnidaria	O	(Kahng et al. 2008)
Life History	early maturation	<i>Chthamalus proteus</i>	Arthropoda	O	(Zabin et al. 2007)
Life History	fecundity	<i>Hemigrapsus sanguineus</i>	Arthropoda	O	(Anderson & Epifanio 2010)
Life History	fecundity	<i>Palaemon macrodactylus</i>	Arthropoda	O	(Béguer et al. 2011)
Life History	fecundity	<i>Charybdis hellerii</i>	Arthropoda	O	(Dineen et al. 2001)
Life History	fecundity	<i>Nuttallia obscurata</i>	Mollusca	E	(Dudas & Dower 2006)
Life History	fecundity	<i>Rapana venosa</i>	Mollusca	E	(Harding et al. 2007)
Life History	fecundity	<i>Carijoa riisei</i>	Cnidaria	O	(Kahng et al. 2008)

Life History	fecundity	<i>Tarebia granifera</i>	Mollusca	O	(Miranda et al. 2011)
Life History	fecundity	<i>Chthamalus proteus</i>	Arthropoda	O	(Zabin et al. 2007)
Life History	gonochoric	<i>Carijoa riisei</i>	Cnidaria	O	(Kahng et al. 2008)
Life History	growth rate	<i>Crassostrea ariakensis</i>	Mollusca	E	(Bishop & Peterson 2006)
Life History	growth rate	<i>Charybdis hellerii</i>	Arthropoda	O	(Dineen et al. 2001)
Life History	growth rate	<i>Crassostrea ariakensis</i>	Mollusca	E	(Kingsley-Smith et al. 2009)
Life History	growth rate	<i>Crassostrea gigas</i>	Mollusca	E	(Krassoi et al. 2008)
Life History	growth rate	<i>Ocinebrellus inornatus</i>	Mollusca	E	(Martel et al. 2004a)
Life History	growth rate	<i>Gracilaria vermiculophylla</i>	Rhodophyta	E	(Nejrup et al. 2013)
Life History	growth rate	<i>Gracilaria vermiculophylla</i>	Rhodophyta	E	(Noe 2002)
Life History	growth rate	<i>Cotula coronopifolia</i>	Magnoliophyta	E	(Noe 2002)
Life History	growth rate	<i>Lolium multiflorum</i>	Magnoliophyta	E	(Noe 2002)
Life History	growth rate	<i>Lythrum hyssopifolium</i>	Magnoliophyta	E	(Noe 2002)
Life History	growth rate	<i>Mesembryanthemum nodiflorum</i>	Magnoliophyta	E	(Noe 2002)
Life History	growth rate	<i>Parapholis incurva</i>	Magnoliophyta	E	(Noe 2002)
Life History	growth rate	<i>Polypogon monspeliensis</i>	Magnoliophyta	E	(Noe 2002)
Life History	growth rate	<i>Sargassum muticum</i>	Phaeophyta	O	(Pedersen et al. 2005)
Life History	growth rate	<i>Undaria pinnatifida</i>	Phaeophyta	E	(Thorner et al. 2004)
Life History	growth rate	<i>Chthamalus proteus</i>	Arthropoda	O	(Zabin et al. 2007)
Life History	high fecundity	<i>Hemigrapsus sanguineus</i>	Arthropoda	O	(Anderson & Epifanio 2010)
Life History	high fecundity	<i>Paracaprella pusilla</i>	Arthropoda	O	(Ros et al. 2013)
Life History	high growth rate	<i>Gracilaria vermiculophylla</i>	Rhodophyta	E	(Nejrup et al. 2013)
Life History	higher # shoots/g of rhizome tissue	<i>Phragmites australis</i>	Magnoliophyta	E	(Vasquez et al. 2006)
Life History	higher # shoots/g of rhizome tissue	<i>Phragmites australis</i>	Magnoliophyta	E	(Vasquez et al. 2005)
Life History	K-strategist	<i>Sargassum muticum</i>	Phaeophyta	M	(Engelen & Santos 2009)
Life History	lack of dormant period	<i>Spartina densiflora</i>	Magnoliophyta	O	(Javier et al. 2005)
Life History	lack of free-swimming larvae	<i>Ocinebrellus inornatus</i>	Mollusca	O	(Martel et al. 2004a)
Life History	lack of resting stage	<i>Acrothamnion preissii</i>	Rhodophyta	O	(Boudouresque & Verlaque 2002)
Life History	lack of resting stage	<i>Caulerpa taxifolia</i>	Chlorophyta	O	(Boudouresque & Verlaque 2002)
Life History	lack of resting stage	<i>Halophila stipulacea</i>	Magnoliophyta	O	(Boudouresque & Verlaque 2002)
Life History	lack of resting stage	<i>Womersleyella setacea</i>	Rhodophyta	O	(Boudouresque & Verlaque 2002)
Life History	large brood size	<i>Gammarus tigrinus</i>	Arthropoda	E	(Sareyka et al. 2011)



Life History	large rhizomes	<i>Phragmites australis</i>	Magnoliophyta	E	(Bart & Hartman 2002)
Life History	larval body size	<i>Watersipora subtorquata</i>	Ectoprocta	E	(McKenzie et al. 2011)
Life History	larval duration	<i>Crepidula fornicata</i>	Mollusca	O	(Le Cam et al. 2009)
Life History	larval growth rate	<i>Crepidula fornicata</i>	Mollusca	O	(Le Cam et al. 2009)
Life History	long brooding period	<i>Botrylloides violaceus</i>	Chordata	O	(Westerman et al. 2009)
Life History	long larval duration	<i>Charybdis hellerii</i>	Arthropoda	O	(Dineen et al. 2001)
Life History	long larval duration	<i>Potamocorbula amurensis</i>	Mollusca	O	(Nicolini & Penry 2000)
Life History	long planktonic phase	<i>Nuttallia obscurata</i>	Mollusca	E	(Dudas & Dower 2006)
Life History	low juvenile mortality	<i>Spartina densiflora</i>	Magnoliophyta	O	(Javier et al. 2005)
Life History	maturation at small size	<i>Gammarus tigrinus</i>	Arthropoda	E	(Sareyka et al. 2011)
Life History	monoecious	<i>Sargassum filicinum</i>	Phaeophyta	O	(Miller et al. 2007b)
Life history	multiple propagule types	<i>Codium fragile</i>	Chlorophyta	E	(Watanabe et al. 2009)
Life History	perennial	<i>Caulerpa racemosa</i>	Chlorophyta	O	(Boudouresque & Verlaque 2002)
Life History	perennial	<i>Caulerpa taxifolia</i>	Chlorophyta	O	(Boudouresque & Verlaque 2002)
Life History	perennial	<i>Halophila stipulacea</i>	Magnoliophyta	O	(Boudouresque & Verlaque 2002)
Life History	perennial	<i>Sargassum muticum</i>	Phaeophyta	O	(Boudouresque & Verlaque 2002)
Life History	perennial	<i>Styopodium schimperi</i>	Phaeophyta	O	(Boudouresque & Verlaque 2002)
Life History	planktotrophic	<i>Rapana venosa</i>	Mollusca	O	(Carranza et al. 2008)
Life History	polandry	<i>Crepidula fornicata</i>	Mollusca	O	(Le Cam et al. 2009)
Life History	reproductive effort	<i>Spartina alterniflora</i>	Magnoliophyta	E	(Davis 2005)
Life History	reproductive effort	<i>Ocinebrellus inornatus</i>	Mollusca	E	(Martel et al. 2004a)
Life History	settlement rate	<i>Musculista senhousia</i>	Mollusca	E	(Kushner & Hovel 2006)
Life History	sexual reproduction	<i>Spartina densiflora</i>	Magnoliophyta	O	(Javier et al. 2005)
Life History	sexual reproduction	<i>Carijoa riisei</i>	Cnidaria	O	(Kahng et al. 2008)
Life History	short generation time	<i>Chthamalus proteus</i>	Arthropoda	O	(Zabin et al. 2007)
Life History	short planktonic larval stage	<i>Styela clava</i>	Chordata	R	(Clarke & Therriault 2007)
Life History	sperm storage	<i>Charybdis hellerii</i>	Arthropoda	O	(Dineen et al. 2001)
Life History	thallus density	<i>Caulerpa taxifolia</i>	Chlorophyta	O	(Wright 2005)
Life History	thallus size	<i>Caulerpa taxifolia</i>	Chlorophyta	O	(Wright 2005)
Life History	total biomass	<i>Caulerpa taxifolia</i>	Chlorophyta	O	(Wright 2005)
Life History	vegetative propagation	<i>Gracilaria salicornia</i>	Rhodophyta	E	(Smith et al. 2004)
Life History	vegetative reproduction	<i>Acrothamnion preissii</i>	Rhodophyta	O	(Boudouresque & Verlaque 2002)

Life History	vegetative reproduction	<i>Asparagopsis armata</i>	Rhodophyta	O	(Boudouresque & Verlaque 2002)
Life History	vegetative reproduction	<i>Caulerpa racemosa</i>	Chlorophyta	O	(Boudouresque & Verlaque 2002)
Life History	vegetative reproduction	<i>Halophila stipulacea</i>	Magnoliophyta	O	(Boudouresque & Verlaque 2002)
Life History	vegetative reproduction	<i>Womersleyella setacea</i>	Rhodophyta	O	(Boudouresque & Verlaque 2002)
Life History	year round propagule production	<i>Paraleucilla magna</i>	Porifera	O	(Longo et al. 2012)
Life History	year round propagule production	<i>Chthamalus proteus</i>	Arthropoda	O	(Zabin et al. 2007)
Management	algicides	<i>Gracilaria salicornia</i>	Rhodophyta	E	(Smith et al. 2004)
Management	deoxygenation	<i>Artemia sp.</i>	Arthropoda	E	(Raikow et al. 2007)
Management	desiccation	<i>Undaria pinnatifida</i>	Phaeophyta	E	(Forrest & Blakemore 2006)
Management	flash heat exposure	<i>Artemia sp.</i>	Arthropoda	E	(Raikow et al. 2007)
Management	freshwater immersion	<i>Undaria pinnatifida</i>	Phaeophyta	E	(Forrest & Blakemore 2006)
Management	heat exposure	<i>Undaria pinnatifida</i>	Phaeophyta	E	(Forrest & Blakemore 2006)
Management	heat exposure	<i>Crassostrea gigas</i>	Mollusca	E	(Rajagopal et al. 2005b)
Management	high salinity	<i>Limnomysis benedeni</i>	Arthropoda	E	(Ovcarenko et al. 2006)
Management	high salinity	<i>Paramysis lacustris</i>	Arthropoda	E	(Ovcarenko et al. 2006)
Management	prolonged heat exposure	<i>Artemia sp.</i>	Arthropoda	E	(Raikow et al. 2007)
Management	salinity	<i>Gracilaria salicornia</i>	Rhodophyta	E	(Smith et al. 2004)
Management	temperature	<i>Gracilaria salicornia</i>	Rhodophyta	E	(Smith et al. 2004)
Management	temperature	<i>Gracilaria salicornia</i>	Rhodophyta	E	(Lenz et al. 2011)
Management	UV exposure	<i>Artemia sp.</i>	Arthropoda	E	(Raikow et al. 2007)
Management	water blasting	<i>Undaria pinnatifida</i>	Phaeophyta	E	(Forrest & Blakemore 2006)
Miscellaneous	attachment strength	<i>Xenostrobus securis</i>	Mollusca	E	(Babarro & Lassudrie 2011)
Miscellaneous	attachment strength	<i>Botrylloides violaceus</i>	Chordata	O	(Clarke Murray et al. 2012)
Miscellaneous	attachment strength	<i>Didemnum vexillum</i>	Chordata	O	(Clarke Murray et al. 2012)
Miscellaneous	attachment strength	<i>Halichondria bowerbanki</i>	Porifera	O	(Clarke Murray et al. 2012)
Miscellaneous	attachment strength	<i>Mytilis sp.</i>	Mollusca	O	(Clarke Murray et al. 2012)
Miscellaneous	attachment strength	<i>Styela clava</i>	Chordata	O	(Clarke Murray et al. 2012)
Miscellaneous	attachment strength	<i>Mytilus galloprovincialis</i>	Mollusca	E	(Zardi et al. 2006)
Miscellaneous	buoyant fertile fragments	<i>Sargassum filicinum</i>	Phaeophyta	O	(Miller et al. 2007b)
Miscellaneous	chemical defense	<i>Fucus evanescens</i>	Phaeophyta	E	(Forslund et al. 2010)
Miscellaneous	crushing ability	<i>Carcinus maenas</i>	Arthropoda	O	(Taylor et al. 2009)
Miscellaneous	defense metabolites	<i>Acrothamnion preissii</i>	Rhodophyta	O	(Boudouresque & Verlaque 2002)

Miscellaneous	defense metabolites	<i>Asparagopsis armata</i>	Rhodophyta	O	(Boudouresque & Verlaque 2002)
Miscellaneous	defense metabolites	<i>Caulerpa racemosa</i>	Chlorophyta	O	(Boudouresque & Verlaque 2002)
Miscellaneous	defense metabolites	<i>Caulerpa taxifolia</i>	Chlorophyta	O	(Boudouresque & Verlaque 2002)
Miscellaneous	defense metabolites	<i>Lophocladia lallemandii</i>	Rhodophyta	O	(Boudouresque & Verlaque 2002)
Miscellaneous	defense metabolites	<i>Sargassum muticum</i>	Phaeophyta	O	(Boudouresque & Verlaque 2002)
Miscellaneous	defense metabolites	<i>Styopodium schimperi</i>	Phaeophyta	O	(Boudouresque & Verlaque 2002)
Miscellaneous	efficient metabolism	<i>Palaemon macrodactylus</i>	Arthropoda	E	(Gonzalez-Ortegon et al. 2010)
Miscellaneous	encrusting morphology	<i>Botrylloides leachi</i>	Chordata	E	(Coutts et al. 2010)
Miscellaneous	encrusting morphology	<i>Botryllus schlosseri</i>	Chordata	E	(Coutts et al. 2010)
Miscellaneous	encrusting morphology	<i>Diplosoma listerianum</i>	Chordata	E	(Coutts et al. 2010)
Miscellaneous	encrusting morphology	<i>Membranipora membranacea</i>	Ectoprocta	E	(Coutts et al. 2010)
Miscellaneous	generalized diet	<i>Multispecies</i>	Chordata	O	(Bates et al. 2013)
Miscellaneous	generalized diet	<i>Charybdis hellerii</i>	Arthropoda	O	(Dineen et al. 2001)
Miscellaneous	High buoyancy	<i>Codium fragile</i>	Chlorophyta	E	(Gagnon et al. 2011)
Miscellaneous	high buoyancy aiding dispersal	<i>Codium fragile</i>	Chlorophyta	E	(Gagnon et al. 2011)
Miscellaneous	historical abundance	93 Mollusca sp.	Mollusca	M	(Miller et al. 2007a)
Miscellaneous	morphology (soft, erect)	<i>Corella eumyota</i>	Chordata	E	(Coutts et al. 2010)
Miscellaneous	plasticity	<i>Carcinus maenas</i>	Arthropoda	E	(Schaefer & Zimmer 2013)
Miscellaneous	plasticity	<i>Spartina alterniflora</i>	Magnoliophyta	E	(Zhang et al. 2008)
Miscellaneous	productivity	<i>Sargassum muticum</i>	Phaeophyta	O	(Pedersen et al. 2005)
Miscellaneous	sand stress	<i>Mytilus galloprovincialis</i>	Mollusca	E	(Zardi et al. 2006)
Miscellaneous	shell strength	<i>Crassostrea ariakensis</i>	Mollusca	O	(Pedersen et al. 2005)
Miscellaneous	strong immune system	<i>Crassostrea ariakensis</i>	Mollusca	E	(Kingsley-Smith et al. 2009)
Miscellaneous	swimming speed	<i>Hypomesus nipponensis</i>	Chordata	E	(Swanson et al. 2000)
Miscellaneous	water content	<i>Phragmites australis</i>	Magnoliophyta	E	(Vasquez et al. 2005)
Tolerance	abiotic stress (undetermined)	<i>Crassostrea gigas</i>	Mollusca	E	(Krasoi et al. 2008)
Tolerance	anoxia	<i>Phragmites australis</i>	Magnoliophyta	E	(Bart & Hartman 2002)
Tolerance	cadmium	<i>Spartina densiflora</i>	Magnoliophyta	E	(Martínez Dominguez et al. 2010)
Tolerance	cold	<i>Mytilus galloprovincialis</i>	Mollusca	O	(Braby & Somero 2006b)
Tolerance	cold	<i>Perna viridis</i>	Mollusca	E	(Urian et al. 2011)
Tolerance	cold tolerance	<i>Perna viridis</i>	Mollusca	O	(Firth et al. 2011)
Tolerance	copper	<i>Anguinella palmata</i>	Ectoprocta	E	(Crooks et al. 2011)

Tolerance	copper	<i>Ascidia zara</i>	Chordata	E	(Crooks et al. 2011)
Tolerance	copper	<i>Balanus improvisus</i>	Arthropoda	E	(Crooks et al. 2011)
Tolerance	copper	<i>Ciona intestinalis</i>	Chordata	E	(Crooks et al. 2011)
Tolerance	copper	<i>Ciona savignyi</i>	Chordata	E	(Crooks et al. 2011)
Tolerance	copper	<i>Cryptosula pallasiana</i>	Ectoprocta	E	(Crooks et al. 2011)
Tolerance	copper	<i>Ectopleura crocea</i>	Cnidaria	E	(Crooks et al. 2011)
Tolerance	copper	<i>Electra monostachys</i>	Ectoprocta	E	(Crooks et al. 2011)
Tolerance	copper	<i>Garveia franciscana</i>	Cnidaria	E	(Crooks et al. 2011)
Tolerance	copper	<i>Haliclona sp.</i>	Porifera	E	(Crooks et al. 2011)
Tolerance	copper	<i>Schizoporella pseudoerrata</i>	Ectoprocta	E	(Crooks et al. 2011)
Tolerance	copper	<i>Schizoporella variabilis</i>	Ectoprocta	E	(Crooks et al. 2011)
Tolerance	copper	<i>Styela clava</i>	Chordata	E	(Crooks et al. 2011)
Tolerance	copper	<i>Watersipora cf. subtorquata</i>	Ectoprocta	E	(Crooks et al. 2011)
Tolerance	copper	<i>Ulva armoricana</i>	Chlorophyta	E	(Han et al. 2008)
Tolerance	copper	<i>Spartina densiflora</i>	Magnoliophyta	E	(Mateos-Naranjo et al. 2008a)
Tolerance	copper	<i>Watersipora subtorquata</i>	Ectoprocta	E	(McKenzie et al. 2011)
Tolerance	copper	<i>Bugula neritina</i>	Ectoprocta	E	(Piola & Johnston 2006a)
Tolerance	copper	<i>Schizoporella errata</i>	Ectoprocta	E	(Piola & Johnston 2006a)
Tolerance	copper	<i>Tricellaria occidentalis</i>	Ectoprocta	E	(Piola & Johnston 2006a)
Tolerance	copper	<i>Watersipora subtorquata</i>	Ectoprocta	E	(Piola & Johnston 2006a)
Tolerance	copper	<i>Bugula neritina</i>	Ectoprocta	E	(Piola & Johnston 2006b)
Tolerance	copper	<i>Schizoporella errata</i>	Ectoprocta	R	(Piola & Johnston 2009)
Tolerance	copper	<i>Watersipora subtorquata</i>	Ectoprocta	R	(Piola & Johnston 2009)
Tolerance	darkness	<i>Heterosiphonia japonica</i>	Rhodophyta	E	(Bjaerke & Rueness 2004)
Tolerance	darkness	<i>Gracilaria vermiculophylla</i>	Rhodophyta	E	(Nyberg & Wallentinus 2009)
Tolerance	darkness	<i>Caulerpa taxifolia</i>	Chlorophyta	E	(Sant et al. 1996)
Tolerance	desiccation	<i>Mytilus galloprovincialis</i>	Mollusca	E	(Nicastro et al. 2010)
Tolerance	desiccation	<i>Gracilaria vermiculophylla</i>	Rhodophyta	E	(Nyberg & Wallentinus 2009)
Tolerance	desiccation	<i>Tubastraea lessona</i>	Cnidaria	O	(Paula & Creed 2005)
Tolerance	desiccation	<i>Caulerpa taxifolia</i>	Chlorophyta	E	(Sant et al. 1996)
Tolerance	desiccation	<i>Codium fragile</i>	Chlorophyta	E	(Schaffelke & Deane 2005)
Tolerance	desiccation	<i>Gracilaria salicornia</i>	Rhodophyta	E	(Smith et al. 2004)

Tolerance	desiccation	<i>Codium fragile</i>	Chlorophyta	E	(Thomsen & McGlathery 2007)
Tolerance	desiccation	<i>Gracilaria vermiculophylla</i>	Rhodophyta	E	(Thomsen & McGlathery 2007)
Tolerance	drought	<i>Spartina densiflora</i>	Magnoliophyta	E	(Mateos-Naranjo et al. 2008b)
Tolerance	eutrophic conditions	<i>Balanus improvisus</i>	Arthropoda	O	(Paavola et al. 2008)
Tolerance	eutrophic conditions	<i>Boccardia redeki</i>	Annelida	O	(Paavola et al. 2008)
Tolerance	eutrophic conditions	<i>Cercopagis pengoi</i>	Arthropoda	O	(Paavola et al. 2008)
Tolerance	eutrophic conditions	<i>Cordylophora caspia</i>	Cnidaria	O	(Paavola et al. 2008)
Tolerance	eutrophic conditions	<i>Gammarus tigrinus</i>	Arthropoda	O	(Paavola et al. 2008)
Tolerance	eutrophic conditions	<i>Marenzelleria viridis</i>	Annelida	O	(Paavola et al. 2008)
Tolerance	eutrophic conditions	<i>Mya arenaria</i>	Mollusca	O	(Paavola et al. 2008)
Tolerance	eutrophic conditions	<i>Potamopyrgus antipodarum</i>	Mollusca	O	(Paavola et al. 2008)
Tolerance	eutrophic conditions	<i>Grateloupia doryphora</i>	Rhodophyta	O	(Simon et al. 2001)
Tolerance	flood tolerance (clonal integration)	<i>Spartina alterniflora</i>	Magnoliophyta	E	(Xiao et al. 2010)
Tolerance	freezing	<i>Grateloupia turuturu</i>	Rhodophyta	E	(Liu & Pang 2010)
Tolerance	grazing	<i>Codium fragile</i>	Chlorophyta	E	(Thomsen & McGlathery 2007)
Tolerance	grazing	<i>Gracilaria vermiculophylla</i>	Rhodophyta	E	(Thomsen & McGlathery 2007)
Tolerance	heavy metals	<i>Grateloupia turuturu</i>	Rhodophyta	E	(Liu & Pang 2010)
Tolerance	heavy metals (Cu, TBT)	<i>Botrylloides leachi</i>	Chordata	E	(Dafforn et al. 2009)
Tolerance	heavy metals (Cu, TBT)	<i>Bugula neritina</i>	Ectoprocta	E	(Dafforn et al. 2009)
Tolerance	heavy metals (Cu, TBT)	<i>Diplosoma listerianum</i>	Chordata	E	(Dafforn et al. 2009)
Tolerance	heavy metals (Cu, TBT)	<i>Hydroides elegans</i>	Annelida	E	(Dafforn et al. 2009)
Tolerance	heavy metals (Cu, TBT)	<i>Styela plicata</i>	Chordata	E	(Dafforn et al. 2009)
Tolerance	heavy metals (Cu, TBT)	<i>Watersipora subtorquata</i>	Ectoprocta	E	(Dafforn et al. 2009)
Tolerance	high salinity	<i>Perna perna</i>	Mollusca	E	(Segnini de Bravo 2003)
Tolerance	high salinity	<i>Perna viridis</i>	Mollusca	E	(Segnini de Bravo 2003)
Tolerance	high temperature	<i>Multispecies</i>	Chordata	O	(Bates et al. 2013)
Tolerance	high temperature	<i>Mytilus galloprovincialis</i>	Mollusca	O	(Braby & Somero 2006b)
Tolerance	high temperature	<i>Mytilus galloprovincialis</i>	Mollusca		(Lockwood et al. 2010)
Tolerance	high temperature	<i>Gammarus tigrinus</i>	Arthropoda	E	(Sareyka et al. 2011)
Tolerance	high temperature	<i>Botrylloides violaceus</i>	Chordata	E	(Zerebecki & Sorte 2011)
Tolerance	high temperature	<i>Botryllus schlosseri</i>	Chordata	E	(Zerebecki & Sorte 2011)
Tolerance	high temperature	<i>Bugula neritina</i>	Ectoprocta	E	(Zerebecki & Sorte 2011)

Tolerance	high temperature	<i>Didemnum vexillum</i>	Chordata	E	(Zerebecki & Sorte 2011)
Tolerance	high temperature	<i>Diplosoma listerianum</i>	Chordata	E	(Zerebecki & Sorte 2011)
Tolerance	high temperature	<i>Watersipora subtorquata</i>	Ectoprocta	E	(Zerebecki & Sorte 2011)
Tolerance	Hsp70 heat shock protein expression	<i>Diplosoma listerianum</i>	Chordata	E	(Zerebecki & Sorte 2011)
Tolerance	hydrodynamic stress	<i>Mytilus galloprovincialis</i>	Mollusca	O	(Zardi et al. 2008)
Tolerance	hypoxia	<i>Spartina densiflora</i>	Magnoliophyta	E	(Castillo et al. 2000)
Tolerance	hypoxia	<i>Scapharca inaequivalvis</i>	Mollusca	E	(Dezwaan et al. 1991)
Tolerance	hypoxia	<i>Palaemon macrodactylus</i>	Arthropoda	E	(Gonzalez-Ortegon et al. 2010)
Tolerance	hypoxia	<i>Perna perna</i>	Mollusca	E	(Hicks & McMahon 2005)
Tolerance	hypoxia	<i>Corbula gibba</i>	Mollusca	E	(Holmes & Miller 2006)
Tolerance	hypoxia	<i>Spartina densiflora</i>	Magnoliophyta	E	(Mateos-Naranjo et al. 2008b)
Tolerance	hypoxia	<i>Gammarus tigrinus</i>	Arthropoda	E	(Sareyka et al. 2011)
Tolerance	innundation	<i>Phragmites australis</i>	Magnoliophyta	E	(Bart & Hartman 2003)
Tolerance	innundation	<i>Phragmites australis</i>	Magnoliophyta	R	(Burdick & Konisky 2003)
Tolerance	innundation	<i>Phragmites australis</i>	Magnoliophyta	O	(Chambers et al. 2002)
Tolerance	innundation	<i>Phragmites australis</i>	Magnoliophyta	R	(Chambers et al. 2003)
Tolerance	innundation	<i>Spartina densiflora</i>	Magnoliophyta	E	(Mateos-Naranjo et al. 2008b)
Tolerance	innundation	<i>Spartina alterniflora</i>	Magnoliophyta	E	(Wang et al. 2010)
Tolerance	inundation	<i>Spartina anglica</i>	Magnoliophyta	E	(Li et al. 2011b)
Tolerance	low salinity	<i>Carcinus maenas</i> (larvae)	Arthropoda	E	(Bravo et al. 2007)
Tolerance	low salinity	<i>Caulerpa brachyus</i>	Chlorophyta	E	(Irlandi et al. 2007)
Tolerance	low salinity	<i>Mytilus galloprovincialis</i>	Mollusca	E	(Lockwood & Somero 2011)
Tolerance	low salinity	<i>Balanus improvisus</i>	Arthropoda	O	(Paavola et al. 2008)
Tolerance	low salinity	<i>Boccardia redeki</i>	Annelida	O	(Paavola et al. 2008)
Tolerance	low salinity	<i>Cercopagis pengoi</i>	Arthropoda	O	(Paavola et al. 2008)
Tolerance	low salinity	<i>Cordylophora caspia</i>	Cnidaria	O	(Paavola et al. 2008)
Tolerance	low salinity	<i>Gammarus tigrinus</i>	Arthropoda	O	(Paavola et al. 2008)
Tolerance	low salinity	<i>Marenzelleria viridis</i>	Annelida	O	(Paavola et al. 2008)
Tolerance	low salinity	<i>Mya arenaria</i>	Mollusca	O	(Paavola et al. 2008)
Tolerance	low salinity	<i>Potamopyrgus antipodarum</i>	Mollusca	O	(Paavola et al. 2008)
Tolerance	low salinity	<i>Perna viridis</i>	Mollusca	E	(Segnini de Bravo 2003)
Tolerance	low temperature	<i>Chrysiptera biocellata</i>	Chordata	E	(Eme & Bennett 2008)

Tolerance	low temperature	<i>Dascyllus aruanus</i>	Chordata	E	(Eme & Bennett 2008)
Tolerance	low temperature	<i>Dischistodus perspicillatus</i>	Chordata	E	(Eme & Bennett 2008)
Tolerance	low temperature	<i>Pterois volitans/miles complex</i>	Chordata	E	(Kimball et al. 2004)
Tolerance	low temperature	<i>Balanus improvisus</i>	Arthropoda	O	(Paavola et al. 2008)
Tolerance	low temperature	<i>Boccardia redeki</i>	Annelida	O	(Paavola et al. 2008)
Tolerance	low temperature	<i>Cercopagis pengoi</i>	Arthropoda	O	(Paavola et al. 2008)
Tolerance	low temperature	<i>Cordylophora caspia</i>	Cnidaria	O	(Paavola et al. 2008)
Tolerance	low temperature	<i>Gammarus tigrinus</i>	Arthropoda	O	(Paavola et al. 2008)
Tolerance	low temperature	<i>Marenzelleria viridis</i>	Annelida	O	(Paavola et al. 2008)
Tolerance	low temperature	<i>Mya arenaria</i>	Mollusca	O	(Paavola et al. 2008)
Tolerance	low temperature	<i>Potamopyrgus antipodarum</i>	Mollusca	O	(Paavola et al. 2008)
Tolerance	mechanical stress (waves)	<i>Sargassum muticum</i>	Phaeophyta	E	(Viejo et al. 1995)
Tolerance	salinity	<i>Limnoperna fortunei</i>	Mollusca	E	(Angonesi et al. 2008)
Tolerance	salinity	<i>Caprella mutica</i>	Arthropoda	E	(Ashton et al. 2007)
Tolerance	salinity	<i>Phragmites australis</i>	Magnoliophyta	E	(Bart & Hartman 2002)
Tolerance	salinity	<i>Phragmites australis</i>	Magnoliophyta	E	(Bart & Hartman 2003)
Tolerance	salinity	<i>Heterosiphonia japonica</i>	Rhodophyta	E	(Bjaerke & Rueness 2004)
Tolerance	salinity	<i>Mytilus galloprovincialis</i>	Mollusca	O	(Braby & Somero 2006b)
Tolerance	salinity	<i>Phragmites australis</i>	Magnoliophyta	R	(Burdick & Konisky 2003)
Tolerance	salinity	<i>Pterygoplichthys pardalis</i>	Chordata	O	(Capps et al. 2011)
Tolerance	salinity	<i>Rapana venosa</i>	Mollusca	O	(Carranza et al. 2008)
Tolerance	salinity	<i>Spartina densiflora</i>	Magnoliophyta	E	(Castillo et al. 2005)
Tolerance	salinity	<i>Phragmites australis</i>	Magnoliophyta	O	(Chambers et al. 2002)
Tolerance	salinity	<i>Phragmites australis</i>	Magnoliophyta	R	(Chambers et al. 2003)
Tolerance	salinity	<i>Styela clava</i>	Chordata	R	(Clarke & Therriault 2007)
Tolerance	salinity	<i>Nuttallia obscurata</i>	Mollusca	E	(Dudas & Dower 2006)
Tolerance	salinity	<i>Botryllus schlosseri</i>	Chordata	E	(Epelbaum et al. 2009)
Tolerance	salinity	<i>Charybdis japonica</i>	Arthropoda	E	(Fowler et al. 2011)
Tolerance	salinity	<i>Hemigrapsus penicillatus</i>	Arthropoda	O	(Gollasch 1998)
Tolerance	salinity	<i>Didemnum vexillum</i>	Chordata	E	(Gröner et al. 2011)
Tolerance	salinity	<i>Perna perna</i>	Mollusca	E	(Hicks et al. 2000)
Tolerance	salinity	<i>Corbula gibba</i>	Mollusca	E	(Holmes & Miller 2006)

Tolerance	salinity	<i>Grateloupia turuturu</i>	Rhodophyta	E	(Liu & Pang 2010)
Tolerance	salinity	<i>Rapana venosa</i> (larvae)	Mollusca	E	(Mann & Harding 2003)
Tolerance	salinity	<i>Tridentiger bifasciatus</i>	Chordata	E	(Matern 2001)
Tolerance	salinity	93 Mollusca sp.	Mollusca	M	(Miller et al. 2007a)
Tolerance	salinity	93 Mollusca sp.	Mollusca	M	(Miller et al. 2007a)
Tolerance	salinity	<i>Potamocorbula amurensis</i>	Mollusca	O	(Nicolini & Penry 2000)
Tolerance	salinity	<i>Cotula coronopifolia</i>	Magnoliophyta	E	(Noe 2002)
Tolerance	salinity	<i>Lolium multiflorum</i>	Magnoliophyta	E	(Noe 2002)
Tolerance	salinity	<i>Lythrum hyssopifolium</i>	Magnoliophyta	E	(Noe 2002)
Tolerance	salinity	<i>Mesembryanthemum nodiflorum</i>	Magnoliophyta	E	(Noe 2002)
Tolerance	salinity	<i>Parapholis incurva</i>	Magnoliophyta	E	(Noe 2002)
Tolerance	salinity	<i>Polypogon monspeliensis</i>	Magnoliophyta	E	(Noe 2002)
Tolerance	salinity	<i>Gracilaria vermiculophylla</i>	Rhodophyta	E	(Nyberg & Wallentinus 2009)
Tolerance	salinity	<i>Rhithropanopeus harrisi</i>	Arthropoda	E	(Roche et al. 2009)
Tolerance	salinity	<i>Brachidontes pharaonis</i>	Mollusca	E	(Sara et al. 2008)
Tolerance	salinity	<i>Grateloupia doryphora</i>	Rhodophyta	O	(Simon et al. 2001)
Tolerance	salinity	<i>Crassostrea ariakensis</i>	Mollusca	R	(Smith 2009)
Tolerance	salinity	<i>Sargassum muticum</i>	Phaeophyta	E	(Steen 2004)
Tolerance	salinity	<i>Hypomesus nipponensis</i>	Chordata	E	(Swanson et al. 2000)
Tolerance	salinity	<i>Ciona intestinalis</i>	Chordata	M	(Therriault & Herborg 2008)
Tolerance	salinity	<i>Phragmites australis</i>	Magnoliophyta	E	(Vasquez et al. 2005)
Tolerance	salinity	<i>Phragmites australis</i>	Magnoliophyta	E	(Vasquez et al. 2006)
Tolerance	salinity	<i>Spartina alterniflora</i>	Magnoliophyta	E	(Wang et al. 2010)
Tolerance	salinity	<i>Mytella charruana</i>	Mollusca	E	(Yuan et al. 2010)
Tolerance	sand stress	<i>Mytilus galloprovincialis</i>	Mollusca	O	(Zardi et al. 2008)
Tolerance	sedimentation	<i>Codium fragile</i>	Chlorophyta	E	(Thomsen & McGlathery 2007)
Tolerance	sedimentation	<i>Gracilaria vermiculophylla</i>	Rhodophyta	E	(Thomsen & McGlathery 2007)
Tolerance	sedimentation (burial)	<i>Phragmites australis</i>	Magnoliophyta	E	(Bart & Hartman 2002)
Tolerance	sedimentation (burial)	<i>Caulerpa taxifolia</i>	Chlorophyta	E	(Glasby et al. 2005)
Tolerance	starvation	<i>Beroe ovata</i>	Ctenophora	E	(Anninsky et al. 2005)
Tolerance	starvation	<i>Mnemiopsis leidyi</i>	Ctenophora	E	(Anninsky et al. 2005)
Tolerance	starvation	<i>Caprella mutica</i>	Arthropoda	E	(Cook et al. 2007)



Tolerance	stress (DO, temp, salinity)	<i>Crassostrea gigas</i>	Mollusca	E	(Lenz et al. 2011)
Tolerance	stress (DO, temp, salinity)	<i>Didemnum vexillum</i>	Chordata	E	(Lenz et al. 2011)
Tolerance	stress (DO, temp, salinity)	<i>Gammarus tigrinus</i>	Arthropoda	E	(Lenz et al. 2011)
Tolerance	stress (DO, temp, salinity)	<i>Isognomon bicolor</i>	Mollusca	E	(Lenz et al. 2011)
Tolerance	stress (DO, temp, salinity)	<i>Perna viridis</i>	Mollusca	E	(Lenz et al. 2011)
Tolerance	sulfide	<i>Phragmites australis</i>	Magnoliophyta	O	(Chambers et al. 2002)
Tolerance	sulfide	<i>Phragmites australis</i>	Magnoliophyta	R	(Chambers et al. 2003)
Tolerance	sulfides	<i>Phragmites australis</i>	Magnoliophyta	E	(Bart & Hartman 2002)
Tolerance	suspended solids	<i>Perna viridis</i>	Mollusca	E	(Shin et al. 2002)
Tolerance	temperature	<i>Tridentiger bifasciatus</i>	Chordata	E	(Matern 2001)
Tolerance	temperature	<i>Cotula coronopifolia</i>	Magnoliophyta	E	(Noe 2002)
Tolerance	temperature	<i>Lolium multiflorum</i>	Magnoliophyta	E	(Noe 2002)
Tolerance	temperature	<i>Lythrum hyssopifolium</i>	Magnoliophyta	E	(Noe 2002)
Tolerance	temperature	<i>Mesembryanthemum nodiflorum</i>	Magnoliophyta	E	(Noe 2002)
Tolerance	temperature	<i>Parapholis incurva</i>	Magnoliophyta	E	(Noe 2002)
Tolerance	temperature	<i>Polypogon monspeliensis</i>	Magnoliophyta	E	(Noe 2002)
Tolerance	thermotolerance	<i>Caprella mutica</i>	Arthropoda	E	(Ashton et al. 2007)
Tolerance	thermotolerance	<i>Heterosiphonia japonica</i>	Rhodophyta	E	(Bjaerke & Rueness 2004)
Tolerance	thermotolerance	<i>Crassostrea gigas</i>	Mollusca	M	(Carrasco & Baron 2010)
Tolerance	thermotolerance	<i>Styela clava</i>	Chordata	R	(Clarke & Therriault 2007)
Tolerance	thermotolerance	<i>Carcinus maenas</i>	Arthropoda	M	(Compton et al. 2010)
Tolerance	thermotolerance	<i>Carcinus maenas</i> (larvae)	Arthropoda	M	(de Rivera et al. 2007)
Tolerance	thermotolerance	<i>Nuttallia obscurata</i>	Mollusca	E	(Dudas & Dower 2006)
Tolerance	thermotolerance	<i>Botryllus schlosseri</i>	Chordata	E	(Epelbaum et al. 2009)
Tolerance	thermotolerance	<i>Charybdis japonica</i>	Arthropoda	E	(Fowler et al. 2011)
Tolerance	thermotolerance	<i>Caulerpa taxifolia</i>	Chlorophyta	E	(Gillespie et al. 1997)
Tolerance	thermotolerance	<i>Caulerpa taxifolia</i>	Chlorophyta	E	(Glasby & Gibson 2007)
Tolerance	thermotolerance	<i>Hemigrapsus penicillatus</i>	Arthropoda	O	(Gollasch 1998)
Tolerance	thermotolerance	<i>Undaria pinnatifida</i>	Phaeophyta	E	(Henkel & Hofmann 2008a)
Tolerance	thermotolerance	<i>Undaria pinnatifida</i> (gametophyte)	Phaeophyta	E	(Henkel & Hofmann 2008b)
Tolerance	thermotolerance	<i>Perna perna</i>	Mollusca	E	(Hicks & McMahon 2002)
Tolerance	thermotolerance	<i>Grateloupia turuturu</i>	Rhodophyta	E	(Liu & Pang 2010)

Tolerance	thermotolerance	<i>Gracilaria vermiculophylla</i>	Rhodophyta	E	(Nejrup et al. 2013)
Tolerance	thermotolerance	<i>Gracilaria vermiculophylla</i>	Rhodophyta	E	(Noe 2002)
Tolerance	thermotolerance	<i>Gracilaria vermiculophylla</i>	Rhodophyta	E	(Nejrup et al. 2013)
Tolerance	thermotolerance	<i>Diplosoma listerianum</i>	Chordata	E	(Osman & Whitlatch 2007)
Tolerance	thermotolerance	<i>Tubastraea lesson</i>	Cnidaria	O	(Paula & Creed 2005)
Tolerance	thermotolerance	<i>Mytilopsis leucophaeata</i>	Mollusca	E	(Rajagopal et al. 2005a)
Tolerance	thermotolerance	<i>Brachidontes pharaonis</i>	Mollusca	E	(Sara et al. 2008)
Tolerance	thermotolerance	<i>Grateloupia doryphora</i>	Rhodophyta	O	(Simon et al. 2001)
Tolerance	thermotolerance	<i>Hypomesus nipponensis</i>	Chordata	E	(Swanson et al. 2000)
Tolerance	thermotolerance	<i>Ciona intestinalis</i>	Chordata	M	(Therriault & Herborg 2008)
Tolerance	thermotolerance	<i>Undaria pinnatifida</i>	Phaeophyta	E	(Thornber et al. 2004)
Tolerance	thermotolerance	<i>Chthamalus proteus</i>	Arthropoda	O	(Zabin et al. 2007)
Tolerance	turbidity	<i>Crassostrea gigas</i>	Mollusca	O	(Dutertre et al. 2009)
Tolerance	turbidity	<i>Chthamalus proteus</i>	Arthropoda	O	(Zabin et al. 2007)
Tolerance	wave exposure	<i>Chthamalus proteus</i>	Arthropoda	O	(Zabin et al. 2007)
Various	various (13 traits)	113 algae species	Rhodophyta, Phaeophyta, Chlorophyta	MA	(Nyberg & Wallentinus 2005)

**Table S5:** Summary of literature (65 studies) that examined the role of post-introduction evolution in mediating marine invasions. The invasive species examined in each study are organized alphabetically by phylum and the following information is listed: the type of study in which the invasion success of the species was examined ('E' for experimental, 'O' for observational, 'M' for modeling, 'MA' for meta-analysis, and 'R' for review), the evolutionary phenomenon studied (bottleneck, hybridization, rapid evolution, or Evolution of Increased Competitive Ability [EICA]), and whether the invasion was successful in spite of bottlenecks, or as a result of hybridization, rapid evolution or EICA, (yes) or unsuccessful (no). Studies are listed multiple times if they involved multiple species.

Invasive Taxon	Invasive Phylum	Type of Study	Evolutionary Phenomenon Studied	Invasion Successful (yes or no)	Citation
<i>Balanus amphitrite</i>	Arthropoda	E	Rapid Evolution	yes	(Raimondi 1992)
<i>Balanus glandula</i>	Arthropoda	O	Bottleneck	yes	(Geller et al. 2008)
<i>Carcinus maenas</i>	Arthropoda	O	Bottleneck	yes	(Tepolt et al. 2009)
<i>Carcinus maenas</i>	Arthropoda	O	Hybridization	no	(Roman 2006)
<i>Carcinus maenas</i>	Arthropoda	O	Hybridization	no	(Darling et al. 2008)
<i>Carcinus maenas</i>	Arthropoda	E	Rapid Evolution	yes	(Kelley et al. 2011)
<i>Carcinus maenas</i>	Arthropoda	E	Rapid Evolution	yes	(Smith 2004)
<i>Chthamalus proteus</i>	Arthropoda	O	Hybridization	yes	(Zardus & Hadfield 2005)
<i>Kamchatskii krab</i>	Arthropoda	E	Rapid Evolution	yes	(Ilyushchenko & Zenzerov 2012)

Invasive Taxon	Invasive Phylum	Type of Study	Evolutionary Phenomenon Studied	Invasion Successful (yes or no)	Citation
<i>Paralithodes camtschaticus</i>	Arthropoda	O	Bottleneck	yes	(Jorstad et al. 2007)
<i>Rhithropanopeus harrisi</i>	Arthropoda	O	Bottleneck	yes	(Projecto-Garcia et al. 2010)
<i>Caulerpa racemosa</i>	Chlorophyta	O	Hybridization	no	(Durand et al. 2002)
<i>Caulerpa racemosa</i>	Chlorophyta	E	Hybridization	yes	(Raniello et al. 2004)
<i>Caulerpa racemosa</i>	Chlorophyta	R	Hybridization	yes	(Panayotidis 2006)
<i>Codium fragile</i>	Chlorophyta	E	EICA	no	(Hill 2006)
<i>Acanthogobius flavimanus</i>	Chordata	O	Bottleneck	no	(Neilson & Wilson 2005)
<i>Acanthopagrus australis</i>	Chordata	O	Hybridization	no	(Roberts et al. 2010)
<i>Botrylloides violaceus</i>	Chordata	O	Bottleneck	yes	(Bock et al. 2011)
<i>Corella eumyota</i>	Chordata	O	Bottleneck	yes	(Dupont et al. 2007)
<i>Fistularia commersonii</i>	Chordata	O	Bottleneck	yes	(Golani et al. 2007)
<i>Neogobius melanostomus</i>	Chordata	O	Rapid Evolution	yes	(Bjorklund & Almqvist 2010)
<i>Oreochromis sp</i>	Chordata	E	Hybridization	no	(Green et al. 2012)
<i>Perophora japonica</i>	Chordata	O	Bottleneck	no	(Pérez-Portela et al. 2012)
<i>Pterygoplichthys pardalis</i>	Chordata	E	Hybridization	yes	(Capps et al. 2011)
<i>Scarus ghobban</i>	Chordata	O	Bottleneck	yes	(Bariche & Bernardi 2009)
<i>Siganus luridus</i>	Chordata	O	Bottleneck	yes	(Hassan et al. 2003)
<i>Siganus rivulatus</i>	Chordata	O	Bottleneck	yes	(Hassan et al. 2003)
<i>Styela plicata</i>	Chordata	E	Bottleneck	yes	(David et al. 2010)
<i>Asteria amurensis</i>	Echinodermata	O	Bottleneck	yes	(Ward & Andrew 1995)
<i>Carpobrotus edulis</i>	Magnoliophyta	E	Hybridization	yes	(Weber & D'Antonio 1999)
<i>Phragmites australis</i>	Magnoliophyta	E	Hybridization	yes	(Meyerson et al. 2010)
<i>Spartina alterniflora</i>	Magnoliophyta	O	Bottleneck	no	(Davis et al. 2004)
<i>Spartina alterniflora</i>	Magnoliophyta	E	Bottleneck	no	(Davis 2005)
<i>Spartina alterniflora</i>	Magnoliophyta	M	Bottleneck	no	(Taylor et al. 2004)
<i>Spartina alterniflora</i>	Magnoliophyta	E	Hybridization	yes	(Eberl 2011)
<i>Spartina alterniflora</i>	Magnoliophyta	O	Hybridization	yes	(Sloop et al. 2011)
<i>Spartina alterniflora</i>	Magnoliophyta	O	Hybridization	yes	(Antilla et al. 1998)
<i>Spartina alterniflora</i>	Magnoliophyta	O	Hybridization	yes	(Anttila et al. 2000)
<i>Spartina alterniflora</i>	Magnoliophyta	O	Hybridization	yes	(Ayres et al. 2008b)
<i>Spartina alterniflora</i>	Magnoliophyta	R	Hybridization	yes	(Ayres et al. 2004b)
<i>Spartina alterniflora</i>	Magnoliophyta	E	Hybridization	yes	(Ayres et al. 2004a)
<i>Spartina alterniflora</i>	Magnoliophyta	O	Hybridization	yes	(Ayres et al. 1999)
<i>Spartina alterniflora</i>	Magnoliophyta	O	Hybridization	yes	(Baumel et al. 2003)

Invasive Taxon	Invasive Phylum	Type of Study	Evolutionary Phenomenon Studied	Invasion Successful (yes or no)	Citation
<i>Spartina alterniflora</i>	Magnoliophyta	R	Hybridization	yes	(Nehring & Hesse 2008)
<i>Spartina alterniflora</i>	Magnoliophyta	E	Hybridization	yes	(Sloop et al. 2009)
<i>Spartina anglica</i>	Magnoliophyta	O	Hybridization, Bottleneck	yes	(Baumel et al. 2001)
<i>Spartina densiflora</i>	Magnoliophyta	O	Hybridization	yes	(Ayres et al. 2008a)
<i>Spartina densiflora</i>	Magnoliophyta	E	Hybridization	yes	(Castillo et al. 2010)
<i>Crepidula fornicata</i>	Mollusca	O	Bottleneck	yes	(Dupont et al. 2003)
<i>Crepidula fornicata</i>	Mollusca	M	Hybridization	yes	(Viard et al. 2006)
<i>Cyclope neritea</i>	Mollusca	E	Hybridization	no	(Bachelet et al. 2004)
<i>Macoma balthica</i>	Mollusca	O	Hybridization	yes	(Strelkov et al. 2007)
<i>Mytella charruana</i>	Mollusca	O	Hybridization	yes	(Gillis et al. 2009)
<i>Mytilus edulis</i>	Mollusca	O	Hybridization	yes	(Shields et al. 2010)
<i>Mytilus edulis</i>	Mollusca	E	Hybridization	yes	(Shields et al. 2008)
<i>Mytilus galloprovincialis</i>	Mollusca	O	Hybridization	yes	(Shields et al. 2010)
<i>Mytilus galloprovincialis</i>	Mollusca	O	Hybridization	yes	(Braby & Somero 2006a)
<i>Mytilus galloprovincialis</i>	Mollusca	O	Hybridization	yes	(Brannock et al. 2009)
<i>Mytilus galloprovincialis</i>	Mollusca	O	Hybridization	yes	(Brannock & Hilbrish 2010)
<i>Mytilus galloprovincialis</i>	Mollusca	E	Hybridization	yes	(Shields et al. 2008)
<i>Mytilus galloprovincialis</i>	Mollusca	O	Hybridization	no	(Anderson et al. 2002)
<i>Mytilus trossulus</i>	Mollusca	O	Hybridization	yes	(Väinölä R & Strelkov 2011)
<i>Ocenebrellus inornatus</i>	Mollusca	O	Bottleneck	yes	(Martel et al. 2004b)
<i>Rapana venosa</i>	Mollusca	O	Bottleneck	yes	(Chandler et al. 2008)
<i>Ruditapes philippinarum</i>	Mollusca	O	Hybridization	yes	(Hurtado et al. 2011)
<i>Fucus serratus</i>	Phaeophyta	O	Hybridization	no	(Johnson et al. 2012)
<i>Sargassum muticum</i>	Phaeophyta	E	EICA	no	(Hill 2006)
<i>Fucus evanescens</i>	Phaeophyta	E	Hybridization	no	(Coyer et al. 2002)
<i>Bonnemaisonia hemifera</i>	Rhodophyta	E	EICA	yes	(Hill 2006)
N/A (review)	N/A	R	N/A	-	(Hanfling 2007)

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