Table S1. Papers published on the topic of 'jellyfish blooms' that contain statements that link anthropogenic stressors to increases or decreases in jellyfish populations. The statements analysed and the affirmation attributed to each statement is included.

Paper	Abbreviation	Statement/s linking jellyfish blooms to anthropogenic stressors	Affirmation
[1]	BENE15	"Although the drivers of increasingly frequent jellyfish blooms are not fully understood, they likely involve a combination of global climate events and local anthropogenic stressors. Climate events include global warming, which may positively affect jellyfish population processes and vital rates (Purcell et al. 2012; Lucas & Dawson 2014)." AND "Local drivers that may cause jellyfish blooms include (but are not limited to) changes in food web structure owing to the depletion of potential predators and competitors from over-fishing, human modification of coastal habitats, including the proliferation of artificial structures that may provide habitats for jellyfish benthic stages, shipping and eutrophication (Purcell 2012; Duarte et al 2012; Boero 2013). Several studies have reported the coincidence of greater abundances of jellyfish with warm conditions and experiments have shown how increasing temperatures may enhance asexual production in several gelatinous species (Purcell et al 2012; Lucas et al. 2014)." AND "In addition to climate change, other potentially important drivers of jellyfish outbreaks, such as fertilizers and organic pollution, habitat modification and overfishing are increasing globally in coastal regions (reviewed in Purcell 2012). Although all these potential causes of jellyfish outbreaks have been acknowledged (Boero 2013), a comprehensive understanding of the influence of individual drivers and their potential syndergistic or antagonistic interactions have remained elusive."	Possible
[2]	BOER15	"No modeling led to predict the regime shift from fish to jellyfish, whose causes are probably manifold, from climate change to overfishing: an increasingly gelatinous future is ahead of us (Boero 2013)."	Probable
[3]	CHIA15	"Interest has grown in population increases in response to climatic fluctuations, over-harvesting of fisheries, pollution, eutrophication and hypoxia, introduction of exotic species, habitat modification, or a combination of such factors (reviewed in Purcell 2012)."	Definite
[4]	CONL15A	"Environmental and ecosystem changes, such as overfishing, global warming, eutrophication, and marine construction, have been argued as causes for such prominent increases in populations of A. aurita in various coastal waters of East Asia (Dong et al. 2010, Uye 2011)."	Probable
[5]	DUAR15	"The putative drivers include human activities, including global warming, eutrophication, overfishing, and coastal sprawl (Purcell 2012, Duarte et al 2013). However, the role of these pressures should be considered hypothetical…."	Possible
[6]	FENG15	"…which have been attributed to the anthropogenic coastal environmental changes such as climate change, overfishing, eutrophication, development of aquaculture, and habitat modification (Attrill et al 2007; Purcell et al 2007; Richardson et al 2009; Purcell 2012)." AND "Several studies have documented that warm temperatures probably will enhance the jellyfish populations (reviewed in Purcell 2005; Kogovsek et al 2010; Lynam et al. 2011; Purcell 2012)."	Probable
[7]	FENG15A	"….and might be linked to climate change, overfishing, eutrophication, agriculture, or habitat modification arising from human disturbances along the coast (Purcell 2005; Purcell et al. 2007; Uye 2008; Richardson et al. 2009; Uye 2011; Purcell 2012)." AND "As one of the most important human stresses, global warming may increase the population of jellyfish and	Possible

		change the timing and length of their seasons and distributions (Purcell 2012). Various studies have reported positive correlations between jellyfish abundance and water temperature (reviewed in Purcell et al 2007; Purcell 2012). Greater abundance of *Chrysaora quinquecirrha* in Chesapeake Bay was recorded in warm conditions (Decker et al. 2007). *Aurelia aurita* and *Cyanea* spp. in the southern part of the North Sea and in the Irish Sea were more abundant during warm years (Lynam et al. 2010, 2011). High *Chrysaora plocamia* biomass was associated with El Nino events occuring in warm "El Viejo" regimes (Mianzan et al 2014)." AND "Global warming may increase the jellyfish population size (Purcell, 2012)."	
[8]	GIRO15	"In recent years, there has been emerging concern wordwide regarding massive jellyfish blooms and their relationship to environmental degradation and climatic change (Mills 2001; Parsons & Lalli 2002; Purcell 2005; Purcell et al. 2007)."	Possible
[9]	GREE15	"In addition to commerical harvesting, anthropogenic pressures such as climate change, hypoxia, and coastal development may positively benefit jellyfish (Parsons & Lalli 2002; Purcell et al. 2007; Richardson et al. 2009; Purcell 2012)." AND "These…." [referring to pollution, eutrophication anthropogenic impacts to shoreline areas in previous paragraph] "…very conditions are also hypothesized to benefit jellyfish because they are more tolerant than forage fish to these states (Parsons & Lalli 2002; Purcell et al. 2007; Richardson et al. 2009)." AND "Extensive commercial harvest of forage fish has been implicated as a cause of declines in forage fish abundance.....as well as increases in jellyfish biomass resulting from release from predation (Purcell & Arai 2001) or competition (Daskalov 2002)."	Possible
[10]	GUSM15	"These gelatinous blooms are considered symptoms of environmental problems, including eutrophication, and associated effects such as hypoxia, commercial over-harvesting of fish and invertebrates, habitat modification, species introductions, and global climate changes (Mills 1995; Purcell & Arai 2001)."	Probable
[11]	HOSI15	"It has been suggested that anthropogenic drivers, such as fisheries and habitat modification, climate change and environmental degradation resulting in eutrophication, hypoxia and reduced optical conditions, may be contributing towards increased jellyfish abundances and more frequent blooms, at least locally, with potential negative consequences for, e.g. fisheries, tourism, industry and recreational activities (reviewed in Purcell et al. 2007)."	Possible
[12]	HUAN15	"Numerous studies discuss the potential factors responsible for these massive blooms, such as ..... climate changes (Mills 2001; Lynam et al. 2006), overfishing (Lynam et al. 2006; Richardson et al. 2009), and the introduction of alien species (Brodeur et al. 2002); Matveev et al. 2012)."	Possible
[13]	JASP15	"These trends have been blamed on the increasing influence of anthropogenic stressors, such as eutrophication, over-fishing, establishment of artificial hard substrata, climate change and species translocations, which has led to the paradigm that GZ will increase in the future (Richardson et al. 2009; Purcell 2012)."	Definite
[14]	KITA15	"Xu et al. (2013) indicated that eutrophication and high seawater temperature in late spring and early summer in the YS and northern ECS would be responsible for outbreak of *N. nomurai*."	Definite
[15]	LESN15	"Indeed, many factors have been put forward to explain the (perceived) increase in jellyfish abundance in specific regions during the last decades: fisheries (Mills 2001), temperature increase (Holst 2012a; Lucas et al. 2012; Purcell et al. 2012; Webster and Lucas 2012), eutrophication (Purcell 2012; Purcell et al. 2013) and ocean acidification (Winans and Purcell 2010; Gattuso et al. 2013)...."	Possible

[16]	MAKA15	"Previous studies have suggested that temperature elevation, increase of food supply by eutrophication, elimination of competitors and predators by hypoxia, and increase of attachment sites on marine structures favor reproduction of polyps to build a larger population (e.g. Duarte et al. 2013; Han and Uye 2010; Ishii et al. 2008)."	Possible
[17]	MARQ15A	"Paradoxically, the expansion of breakwaters, jetties and seawalls in coastal areas also promotes large suitable substrates for jellyfish polyp settlement, thereby promoting the foundation of jellyfish outbreaks (Purcell 2012; Duarte et al. 2013; Boero 2013; Makabe et al. 2014). AND Consequently, by expanding the availability of settlement substrates, ocean sprawl is hypothesized as a major cause of jellyfish outbreaks (Duarte et al. 2013). AND This is in agreement with the expected influence that increasing coastal constructions have on promoting jellyfish outbreaks through enlarging settling structures (Duarte et al. 2013; Qiu 2014; Makabe et al. 2014)."	Possible
[18]	NUNE15	"Although overfishing, coastal habitat degradation and climate change are amongst the most probable drivers (Purcell 2012)…."	Probable
[19]	PASC15	"Numerous factors may increase jellyfish abundances: over-fishing that may decrease their predators and competitors; eutrophication, which can lead to hypoxia that is detrimental to fish but not jellyfish, and proliferation of artifical structures that are potential substrates for scyphistomae (harbours, aquaculture, oil platforms) (reviewed in Purcell et al. 2007; Duarte et al. 2013). In addition climate change may favour blooms of some species. For instances, changes in *Chrysaora melanaster* biomass were related to biophysical indices (surface-water temperature, wind mixing and ice cover) in the eastern Bering Sea (Brodeur et al. 2008). Another key anthropogenic cause of increased jellyfish is translocation of species into new habitats (no ref provided)."	Possible
[20]	REMO15	"Finally, the rise in sea temperature and the modification in ocean productivity due to CC have already led to jellyfish proliferation (Purcell 2005)."	Definite
[21]	ROBI15	"Evidence suggests that jellyfish blooms can become larger or more frequent as a consequence of anthropogenic pressures, including climate change (Purcell 2005; Lynam et al. 2011; Robinson and Graham 2014), habitat modification (Lo et al. 2008; Duarte et al 2012), cultural eutrophication (Oguz 2005), the expansion of hypoxic waters (Purcell et al. 2001; Graham 2001; Riisgard et al 2012), and overfishing (Roux et al. 2013)."	Possible
[22]	RUPP15	"Recently, for example in (Haraldsson et al. 2012), a third trail of reasoning has been added by discussing and mathematically analyzing the effects of water quality. As fish depend on good visibility conditions for hunting, eutrophic oceans may favor jellyfish."	Possible
[23]	SUN15A	"Although there is some evidence to suggest that various anthropogenic factors, such as global warming, eutrophication, overfishing, and marine constructions, could be important drivers for the recent increase and expansion of N. nomurai blooms (Purcell et al. 2007; Richardson et al. 2009; Uye 2011; Duarte et al 2013), the mechanisms associated with these phenomena are unclear, thus making it difficult to predict the timing or size of future blooms."	Possible
[24]	TILL15	"Scientists have speculated that the warming of the oceans is a vital component in the success of these jellyfish blooms (Kawahara et al 2013)." AND "A number of stressors that include natural ecological fluctuations, anthropogenic activity	Possible

		(e.g., eutrophication; Arai 2001; Richardson et al. 2009), overfishing, habitat modification, chemical pollution, and introduction of exotic species in the marine environment (Hay 2006; Purcell 2007; Richardson et al 2009) are suggested causes of these blooms." AND "Pollution and permanent parking of vessels in the Mandovi river of Panaji is also giving rise to toxic jellyfish blooms, causing problems for the fishing industry (Nagvenkar 2012)." AND "In China, increased number of marine construction where polyps settle and decreased currents (retention) in bays has led to a higher than usual abundance of moon jellies (Dong et al. 2012)."	
[25]	TSEN15	"Several environmental factors have been used to explain jellyfish blooms, including a decrease in the number of predators (Uye and Ueta 2004), overfishing (Jackson et al. 2001; Pauly et al. 2009; Richardson et al 2009), eutrophication (Mills 2001; Liu and Diamond 2005), hydrographic changes (Cheng et al. 2005), artificial constructions (Uye 2008; Dong et al. 2010), global warming (Purcell et al. 2007; Richardson et al. 2009; Purcell 2012), and climate change (Dong et al. 2010). A growing body of evidence has indicated that several human activities have increased the frequency of blooms, including shipping, aquaculture, industrialization in and around coastal areas, and the outcomes of policies on coastal protection management (Duarte et al. 2013). These studies have reported that ocean sprawl could promote jellyfish blooms in coastal waters."	Probable
[26]	VANS15	"Global warming, overfishing, eutrophication, habitat modification and transport of non-indigenous species cumulatively affect the ecosystem and intensify the natural fluctuations in jellyfish abundance (Mills 2001; Purcell et al. 2007; Richardson et al. 2009)."	Definite
[27]	WALR15	"There is growing concern that gelatinous zooplankton mass occurrences are increasing in magnitude and frequency (Gibbons and Richardson 2009) due to habitat modification, eutrophication, climate change and overfishing (Mills 2001; Purcell 2012)."	Possible
[28]	WANG15	"It has been suggested that anthropogenic causes, such as eutrophication (Purcell 2012), climate change (Purcell 2005; Attrill et al. 2007), overfishing (Daskalov et al. 2007), aquaculture (Lo et al. 2008), marine construction (Duarte et al. 2012), biological invasion (Mills 2001; Graham et al. 2003; Graham and Bayha 2007), and aquarium exchange (Bolton and Graham 2006) are related to increasing jellyfish blooms."	Possible
[29]	WANG15C	"Studies suggest that the increase and expansion of *A. aurita* blooms are related to climate change, eutrophication, ocean acidification, overfishing, and increasing availability of anthropogenic hard substrate (Parsons & Lalli, 2002; Richardson et al. 2009; Duarte et al. 2013; Miller & Graham 2012; Janβen et al. 2013)." AND "Anthropogenic factors such as eutrophication, species translocation, habitat modifications due to marine construction, and empty niches due to removal of higher predators also could have led to the development of jellyfish blooms (Purcell et al. 2007; Uye 2011; Malej et al. 2012)."	Possible
[30]	WARY15	"It is a well-known fact that jellyfish typically feed on the same kind of prey as many adult or larval fishes do; therefore, it is possible that energy that previously went into the production of fishes may be switched over to the production of	Possible

		pelagic cnidarians or ctenophores (Mills 1995). The introduction of nonindigenous species of jellyfishes into coastal ecosystems has also resulted in the population explosion of such species (Mills 2001)."	
[31]	WEI15A	"The increase of jellyfish bloom has been a wordwide problem and the possible causes for this phenomenon have been reviewed by Dong et al. (2010) and Purcell (2012). Generally speaking, global warming and human activity (e.g. overfishing, eutrophication, aquaculture and coastal construction) are thought to be the mechanism of the increasing jellyfish blooms."	Possible
[32]	XIE15	"The causes of jellyfish blooms are still uncertain but heavily related to the anthropogenic impact (Purcell et al 2007; Richardson et al. 2009) such as overfishing (Brodeur et al. 2002; Lynam et al. 2006, Purcell & Arai 2001), eutrophication (Arai 2001), climate change (Brodeur et al. 2008), habitat modification (Lo et al. 2008; Miyake et al. 2002) and alien invasion (Dawson et al. 2005; Graham and Bayha 2007; Kideys 2002)."	Possible
[33]	YILM15	"The climate-related changes in abundance and community structure of marine plankton (Hays et al. 2005) caused a trend towards gelatinous top predators as a result of eutrophication (Arai 2001), overfishing (Lynam et al. 2006), climate change (Purcell 2005) and marine invasions (Shiganova 1998)."	Definite
[34]	BAGH14	"The south-western Caspian Sea reflects the same trend that is observed in other marine environments: a declining biodiversity accompanied by a spreading of invader species such as *Acartia* sp. and gelatinous zooplankton (comb jellyfish), caused mainly by anthropogenic activities such as modifications of river flows and eutrophication (Purcell *et al*., 2007; Richardson, 2008; Occhipinti-Ambrogi & Ambrogi, 2009)."	Probable
[35]	BATT14	"They may be related to an alteration of marine ecosystems, both of climatic and anthropogenic nature, as global warming, overfishing (Goy *et al*., 1989) or accidental introduction of a non-indigenous species (Kideys, 1994; Shiganova, 1997)."	Possible
[36]	BARZ14	"Jellyfish populations have swelled in recent years as a result of overfishing, eutrophication, climate change and habitat modifications (Purcell *et al*., 2007; Richardson *et al*., 2009)."	Definite
[37]	BLAC14	"A reduction in competitive pressure from pilchards, and increased prey resources may have contributed to the establishment of the *M. atlantica* population. Similar structural changes in the Irish Sea ecosystem following a decline in the herring (*Clupea harengus*) population have been linked to the increased frequency of cnidarian material present in CPR samples after 1970 (Lynam *et al*., 2011)."	Possible
[38]	BROD14	"In some productive pelagic ecosystems, overfishing of small pelagic fishes over the last few decades has been implicated as a cause of many of these massive blooms (Lynam *et al*., 2006; Uye, 2011; Roux *et al*., 2013)."	Probable
[39]	DEDO14	"Interest in jellyfish grew considerably in recent years as a result of "anomalous" proliferations seen with increasing frequency in all seas and the new appearance of invasive species in temperate seas (Brotz *et al*., 2012), linked to multiple causes such as climate change, overfishing and pollution (Purcell *et al*., 2007; Purcell, 2012; Boero *et al*., 2008)."	Probable
[40]	GAMB14	"Regardless of whether recent increases in the frequency of jellyfish blooms are due to climate change or natural oscillations in populations (Condon *et al*. 2013), warming waters have been correlated with increased abundance of scyphozoan jellyfish in some marine systems (Han & Uye, 2010; Holst, 2012; Lynam *et al*., 2004)."	Possible

[41]	GIOV14	"A number of anthropogenic perturbations have been suggested as possible causes of abnormal jellyfish mass occurrence, including global warming, eutrophication, overfishing, and the increase of artificial hard substrates (reviewed in Purcell *et al*., 2007; Richardson *et al*., 2009; Purcell, 2012)."	Possible
[42]	GJEL14	"Following increased water temperatures during the last decades, mass occurrences of various jellyfish blooms (including *P. periphylla*) have been reported with increasing frequency (Condon et al. 2013; Gibbons & Richardson 2013; Duarte et al. 2012)."	Definite
[43]	GRAH14	"Consequently, there is concern that anthropogenic impacts through fisheries overharvesting, eutrophication of coastal waters and marginal seas, non-native species introduction, and climate change could trigger increased jellyfish blooms in some locations (Purcell *et al*., 2007)."	Possible
[44]	HOSI14	"In addition to climate change, other suggested causes for increased jellyfish numbers - at least on a local scale - include overfishing, eutrophication, deteriorated light environments, species introductions and subsurface construction (reviewed in Purcell *et al*., 2007; Richardson *et al*., 2009)."	Possible
[45]	KOGO14	"The population size of gelatinous organisms is hypothesised to increase in the future if anthropogenic stressors such as nutrient inputs, overfishing, proliferation of coastal and offshore constructions and climate change will further change pelagic ecosystems worldwide (Purcell, 2012)."	Possible
[46]	LIN14	"Purcell *et al*., (2007) proposed that eutrophication could cause the phytoplankton community to shift from a diatom- to a flagellate-based food web, which favored size reduction of the zooplankton community and could lead to jellyfish blooms."	Possible
[47]	LIU14	"The possible causes of increase in jellyfish population have several speculations, including climate change, overfishing, eutrophication, invasions, marine construction and so on (Arai, 2001; Mills, 2001; Purcell, 2005; Hay, 2006; Graham & Bayha, 2007)."	Possible
[48]	LUCA14	"They are also consistent with previous studies that suggest several coastal bloom-forming and oceanic GZ species, including *Aurelia* spp., *Chrysaora quinquecirrha, Cyanea capillata*, *Mnemiopsis leidyi* and *Pleurobrachia bachei*, tolerate hypoxia (30% air saturation, <1.4 ml O2/l) and even severely hypoxic (<0.35 ml O2/l) conditions (Thuesen *et al*., 2005). Furthermore, extreme abundances of the scyphozoan *Crambionella orsini* have been observed within the oxygen minimum zone (<0.35 ml O2/l) on the upper slopes off the coast of Oman (Billett *et al*., 2006). This agrees with several other studies that suggest increased cnidarian and thaliacean biomass is associated with warmer SST (e.g. the Mediterranean, Kogovsek *et al*., 2010; the North Atlantic, Gibbons & Richardson, 2009), although trends are not universal....."	Possible
[49]	MAKA14	"Major causes for the increase have been hypothesized to be a result of climate change (Attrill *et al*., 2007; Holst, 2012; Kogovsek *et al*., 2010) and also may result from various human impacts on the ocean such as eutrophication, overfishing and modification of the coastal geomorphology (Purcell, 2012; Richardson *et al*., 2009; Uye, 2011)." AND "The expansion of similar artefacts in coastal areas worldwide is likely contributing to the global increase of jellyfish outbursts (Duarte *et al*., 2013)."	Possible
[50]	MELI14	"Possible causes for recent outbreaks have been speculated to be related to increased ocean temperature by global warming, increased zooplankton prey by eutrophication, increased polyp attachment sites offered by anthropogenic marine	Possible

		construction and decreased zooplanktivorous fish stocks by over-fishing (e.g. Arai, 2001; Graham, 2001; Purcell, 2005; Lynam *et al*., 2006; Richardson *et al*.. 2009)."	
[51]	PIKE14	"Fluctuations in jellyfish abundance have potentially been linked with …..pH (Attrill *et al*., 2007),…..eutrophication (Purcell *et al*., 2007) and habitat modification (Richardson *et al*.. 2009)." AND "These factors may also be related to increases in abundance associated with opportunistic expansion, following decreased predatory pressure as a result of declining fish abundance due to commercial fisheries (Pauly *et al*., 1998; Mills, 2001; Lynam *et al*., 2006)."	Possible
[52]	RAND14	"The causes of these blooms are still unknown (Honda *et al*., 2005), although fisheries' overexploitation, increasing sea water temperature, increased eutrophication, and marine pollution have been suggested as major factors (Kawahara *et al*., 2006; Uye. 2008; Shiraki *et al*., 2008; Yoon *et al*., 2008; Dong *et al*., 2010; Buckland *et al*., 2001)."	Possible
[53]	ROBE14	"The idea that jellyfish populations may be enhanced by human perturbations of the ocean (e.g. fisheries, nutrient and substrate additions, species introduction, climate change) has received substantial attention (Richardson *et al*., 2009; Brotz *et al*., 2012; Purcell, 2012), but remains controversial (see Condon *et al*., 2012; Condon *et al*., 2013)."	Possible
[54]	SCHI14	"The main results of our experiments show that with increasing temperature and food supply the rate of asexual reproduction of several species is increased. These conditions are major symptoms of the deterioration in marine environments caused by several anthropogenic actions that favour jellyfish (viz. Purcell *et al*., 2007; Richardson *et al*., 2009)."	Definite
[55]	SCHR14	"Recent studies on the ecology of jellyfish has evidenced the increase of these organisms in various parts of the world for multiple reasons such as the removal of top predators, coastal pollution, invasions, global warming, overfishing (Mills, 2001; Purcell *et al*., 2007; Condon *et al*., 2013)" AND "Although global changes including warming temperatures (Purcell *et al*., 2007; Purcell, 2012), which enhance production, feeding and growth rates of jellyfish (Purcell, 2005), may provide satisfactory conditions for jellyfish blooms, overfishing of jellyfish competitors (Daskalov *et al*., 2007) would also contribute to that."	Definite
[56]	SWEE14	"While recent meta-analyses show that numerous areas experience recurrent oscillations in jellyfish blooms (lasting approx. 20 years) (Condon *et al*., 2013), there are indications that ocean warming, over-fishing, aquaculture, eutrophication and coastal development are causing increased gelatinous zooplankton populations in many other regions (Link & Ford, 2006; Purcell *et al*., 2007; Utne-Palm *et al*., 2010; Purcell, 2012)."	Possible
[57]	UGLA14	"It has been suggested that the *P. periphylla* mass occurrences, combined with the absence of fish, have developed because of a gradual increase in the light attenuation of the Norwegian coastal water (Eiane *et al*., 1999; Sornes *et al*., 2007; Aksnes *et al*., 2009)."	Possible
[58]	YOON14	"The causes of jellyfish bloom are still unknown although several factors, such as increase in seawater temperature, fisheries overexploitation and marine pollution, are considered as major causal factors or at least mediating factors (Arai, 2001; Purcell, 2005; Graham & Bayha, 2007; Purcell *et al*., 2007; Uye, 2008; Richardson *et al*., 2009; Condon *et al*., 2013)."	Possible
[59]	ACEV13	"Reviews have proliferated recently speculating that jellies have benefited from human-caused changes, including climate change, eutrophication, overfishing, coastal construction, and species introductions (Purcell, 2012)."	Possible

[60]	ANNI13	"Climate, navigation, uncontrolled fishing, and eutrophication of coastal areas contributed to the considerable increase in the biomass of gelatinous predators over the last few years (Purcell, 2005, Purcell *et al*., 2007)."	Definite
[61]	BERL13	"Second, several authors hypothesized that jellyfish and, more broadly, gelatinous zooplankton, may have benefitted from the trophic reorganization driven by both ocean warming and removal of top predators by overfishing (Purcell, 2005; Lynam *et al*., 2006; Attrill *et al*., 2007)."	Possible
[62]	COND13	"The slight overall increase since the 1970s is correlated with global changes, including increased human activity along the coastline that could facilitate or amplify increases in jellyfish. These global changes include warming temperatures (Purcell *et al.*, 2007; Purcell, 2012), which enhance production, feeding and growth rates of jellyfish (Purcell, 2005), overfishing of competitors of jellyfish (Daskalov *et al*., 2007), an increased supply of planktonic food for jellyfish associated with eutrophication of coastal waters (Parsons & Lalli, 2002), and the spread of hypoxia, to which jellyfish exhibit greater tolerance than most other metazoans (Purcell, 2012, Vaquer-Sunyer & Duarte, 2008). The proliferation of artificial structures associated with human activities has also been argued to promote blooms of meroplanktonic medusae by increasing suitable hard substrate for their benthic polyps (Duarte *et al*., 2013)."	Possible
[63]	DUAR13	"Multiple explanations have been suggested for possible drivers of the apparent increase of jellyfish blooms in many coastal waters around the globe, including the depletion of predators and competitors of jellyfish by overfishing, accidental translocations, eutrophication of coastal waters, changes in freshwater flows, human modification of coastal geomorphology, and climate change (Mills, 2001; Purcell *et al*., 2007; Purcell, 2012)."	Possible
[64]	GIBB13	"This potential increase has been variously attributed to human-mediated environmental change in the Anthropocene: fishing, ocean warming, hypoxia, habitat modification and coastal development, eutrophication and accompanied in some instances by alien introductions (Purcell *et al*., 2007; Richardson *et al*., 2009; Purcell, 2012)."	Possible
[65]	HONG13	"The shift from fish-dominated to gelatinous dominated can be caused by overexploitation of fish (Lynam et al. 2006) and climate-related environmental change (Mills 2001; Purcell and Decker 2005; Richardson 2008)."	Probable
[66]	KAWA13	"The recent and recurrent nature of the blooms suggests that anthropogenic environmental conditions conducive to outbreaks (e.g. over-fishing, global warming, eutrophication and increase of marine construction) have prevailed for some time in Chinese coastal waters, the seeding and nursery grounds of this jellyfish species (Uye, 2008)."	Definite
[67]	MAJA13	"Furthermore, a proposed increase in the occurrence of gelatinous zooplankton species due to climate shifts (Purcell *et al*., 2010) suggests an increased importance of these species as regulators of prey communities as well."	Possible
[68]	NAST13	"Evidence suggests that a variety of human activities such as seafood harvesting, eutrophication, the introduction of alien species, coastal and offshore hard substrate infrastructure (ports, rigs, aquaculture) and climate change may benefit jellyfish populations (Purcell, 2012)." AND "The artificial structures offering substrate for the settlement of polyps are increasing rapidly and stimulating jellyfish proliferation (Duarte *et al*., 2013)."	Possible
[69]	PRUD13	"Several causes, such as climate change and anthropogenic effects, have been suggested for ecosystem changes and corresponding jellyfish population increases (Mills, 1995, 2001)."	Possible
[70]	PURC13	"There is mounting evidence that populations fluctuate with climatic cycles and that temperate species may increase their abundances, spatial, and seasonal distributions in a warming climate (Purcell, 2005)." AND "This further 'fishing down'	Possible

		removes competitors of jellyfish, possibly increasing their success (e.g., Purcell *et al*., 2007, Purcell, 2012)". AND "Aquaculture operations also can have several potentially beneficial effects on jellyfish populations at local scales (Purcell, 2005). Lo *et al*., (2008) discuss how increased nutrients around the farms, due to excess fish food and waste products, could create eutrophic conditions that may favour jellyfish over fish, such as smaller zooplankton that are less beneficial foods for fish and decreased dissolved oxygen and water clarify (Arai, 2001; Purcell *et al.*, 2007)."	
[71]	QUIN13	"Various explanations were offered as possible drivers for increased blooms, including overfishing, eutrophication, accidental translocations, proliferation of artificial structures in coastal environments, and global warming (e.g. Parsons & Lalli, 2002; Purcell, 2011; Holst & Jarms, 2007; Brodeur *et al*., 2008; Richardson *et al*., 2009)." AND "Recently, many commercial fisheries have been diminished and seemingly replaced by jellyfish. For example, in the Benguela current system, the jellyfish biomass of *Chrysaora hysoscella* (Linnaeus, 1766) and *Aequorea forskalea* (Forsskal, 1775) increased while pelagic fish biomass decreased during the last four decades (Lynam *et al*., 2006). A similar situation was described for the East China and Yellow seas, where the fisheries decline was associated with jellyfish increase (Dong *et al*., 2010)."	Possible
[72]	RUPP13	"Recently, e.g. in Haraldsson *et al*., (2012) a third trail of reasoning has been added by discussing and mathematically analyzing the effects of water quality. As fish depend on good visibility conditions for hunting, eutrophic oceans may favor jellyfish."	Possible
[73]	SAHU13	"Increased jellyfish production in marine ecosystems is perhaps a symptom of larger ecosystem degradation due to coastal eutrophication and overfishing (Caddy, 1993; Mills, 1995)."	Possible
[74]	THEI13	"Although climatic regime shifts are thought to be responsible for the fluctuations of jellyfish populations (Brodeur *et al*., 2008; Condon *et al.*, 2012; Lynam *et al*., 2010), various anthropogenic impacts to the marine environment, such as global warming, eutrophication, overfishing and marine constructions, are also argued to be drivers of the recent increase and expansion of jellyfish blooms (Duarte *et al*., 2013; Purcell *et al*., 2007; Richardson *et al*., 2009; Uye, 2011)."	Probable
[75]	XU13	"Previous studies have suggested that anthropogenic environmental changes, for example eutrophication, habitat modification, overfishing, and global warming are responsible for these recent outbreaks (Purcell *et al*., 2007; Uye, 2009; 2011)." AND "Changes in the food web may reduce the size of the zooplankton community, leading to more favorable conditions for jellyfish than for fish (Purcell *et al*., 2007; Richardson *et al*., 2009; Purcell, 2012)." AND "Moreover, eutrophication with enhanced organic matter production may contribute to the frequent occurrence and greater intensity of hypoxia/anoxia in coastal waters (Chai *et al*., 2006), which would probably benefit jellyfish rather than fish (Purcell, 2012)." AND "Global warming is regarded as important factor affecting increases in jellyfish outbreaks (Purcell *et al*., 2007; Richardson *et al*., 2009)." AND "Kawahara *et al*., (2006) speculated that the ecosystem changes associated with eutrophication may be responsible for the enhancement of giant jellyfish populations."	Possible
[76]	ASTO12	"Several factors have been proposed to explain their occurrence including eutrophication (Arai, 2001), an increase in hard substrates for polyp attachment (Parsons & Lalli, 2002; Holst & Jarms, 2007), exotic translocations (Purcell *et al*., 2001), overfishing (Pauly *et al.*, 2002) and climate change (Purcell, 2005)." AND "One hypothesis proposed for increasing jellyfish outbreaks is increased artificial hard substrates for polyp attachment in coastal areas (Parsons & Lalli, 2002)."	Possible

[77]	BAUM12	"There are convincing arguments that several anthropogenic influences, such as eutrophication (Purcell *et al*., 1999), climate effects (Purcell, 2005), overfishing (Lynam *et al*., 2006) and more hard substrate in the marine environment (Holst & Jarms, 2007) favour an increase of jellyfish populations."	Probable
[78]	BROT12	"As such, the increasingly warmer temperatures observed in the Mediterranean Sea may have facilitated the increased populations of this species (Molinero *et al*., 2005; Daly Yahia *et al*., 2010). Jellyfish belonging to the genus *Aurelia* have also been shown to benefit from warmer temperatures through increased growth (Widmer, 2005) and enhanced asexual reproduction (Purcell, 2007; Liu *et al*., 2009; Purcell *et al*., 2009; Han & Uye, 2010) which could be involved in the increases observed in some *Aurelia* populations in the Mediterranean. Of course, increased temperatures may be detrimental to other species of jellyfish, as could be the case with the observed decline of the ctenophore *Pleurobrachia rhodopsis* in the north-western Mediterranean during the late 1980s (Molinero *et al*., 2008b). Some mechanisms involve cultural eutrophication, whereby increased nutrient input of anthropogenic origin may create conditions that favour jellyfish over other organisms (Purcell *et al*., 1999; Arai, 2001). Curiously, *R. pulmo* directly consumes diatoms in the Mar Menor, and may benefit from increased production due to eutrophication (Perez-Ruzafa *et al*., 2002; Lilley *et al*., 2009). As polyps of *C. tuberculate* appear highly influenced by temperature, it is suspected that blooms of this jellyfish will be increasingly recurrent in the Mar Menor under global warming scenarios (Prieto *et al*., 2010)."	Possible
[79]	BROT12A	"There are also suggestions that jellyfish may benefit from anthropogenic pressures on the marine environment (Mills, 1995, 2001, Purcell *et al.*, 2007, Pauly *et al.*, 2009, Richardson *et al.*, 2009, Purcell, 2012). Suggested causes include eutrophication, overfishing, global warming, habitat modification, aquaculture, salinity changes, ocean acidification and, of course, translocation." AND "...whereas recent increased blooms of *Aurelia* sp. in Tokyo Bay, Japan are more likely due to the effects of eutrophication (Nomura & Ishimaru, 1998; Ishii *et al.*, 2008)."	Probable
[80]	CHEN12	"Nutrient over-enrichment, among other anthropogenic causes, may also contribute to the proliferation of jellyfish blooms in East Asian coastal waters (Purcell *et al*., 2007; Dong *et al*., 2010). A comparative study suggests that a link exists between elevated ambient nutrient levels and the abundance and size of the epibenthic jellyfish *Cassiopea* spp (Stoner *et al*., 2011). If nutrient loads added to the coastal zone are rich in N and P but poor in Si, non-siliceous phytoplankton may proliferate and replace diatoms, a situation more favorable for jellyfish than for fish (Richardson *et al*., 2009)."	Possible
[81]	COND12	"Although some recent reports of mass occurrences suggest a variety of human-related causes, such as eutrophication, climate change, overharvesting of fish, and translocations (e.g. Mills, 2001; Pauly *et al.*, 2003; Purcell *et al*., 2007; Richardson *et al*., 2009 and the references within it), others have found no evidence of unnatural blooms- for example, of *Crambionella orsini* (e.g. Daryanabard & Dawson, 2008) - or have shown decreases in the numbers of jellyfish and salps (Mills, 2001; Lavaniegos & Ohman, 2003; Brodeur *et al*., 2008)."	Possible
[82]	DONG12	"Previous case studies on coasts elsewhere indicated coastal eutrophication and increased substrate suitable for jellyfish larval settlement to be an important contributor to the *A. aurita* blooms (Arai, 2001; Mills, 2001; Lo *et al*., 2008)."	Possible
[83]	FERR12	"These increases result in a simultaneous negative impact on tourism, aquaculture and fisheries (Mills, 2001) and have been potentially attributed to climate change (Brodeur *et al*., 1999; Purcell, 2005), eutrophication (Arai, 2001) and overfishing (Purcell & Arai, 2001; Hay, 2006; Lynam *et al*., 2011)."	Possible

[84]	HARA12	"Jellyfish mass occurrence and apparent shifts from fish- to jellyfish-dominated systems have been linked to numerous factors such as fisheries (Brodeur *et al*., 2002; Lynam *et al*., 2006; Daskalov *et al*., 2007), aquaculture (Lo *et al*., 2008), eutrophication (Parsons & Lalli, 2002; Purcell *et al*., 2007), hypoxia (Decker *et al*., 2004; Thuesen *et al*., 2005) and water clarify (Aksnes, 2007; Sornes *et al*., 2007). Furthermore, increased jellyfish abundances have been linked to climate change, including temperature increase (Purcell *et al*., 2007; Lynam *et al*., 2011), enhanced stratification (Richardson *et al*., 2009) and decreased pH (Richardson & Gibbons, 2008). Finally, translocations of species have also been seen as contributors to jellyfish blooms (Graham & Bayha, 2007)."	Possible
[85]	HOLS12	"Jellyfish blooms were correlated with hydroclimatic and environmental factors, and consequently, climatic changes, eutrophication, and overfishing were detected as probable causes for increasing mass occurrences (Purcell , 2005; Purcell, 2012; Attrill *et al*., 2007; Purcell *et al.*, 2007; Molinero *et al*., 2008; Kogovesek *et al*., 2010; Licandro *et al*., 2010)."	Probable
[86]	KIM12	"Mass outbreaks of jellyfish since the 1960s, caused by global warming, environmental pollution, the construction of marine structures, and deteriorating marine resources, have had a huge influence worldwide, triggering significant social and economic problems (Arai, 2001; Parsons & Lalli, 2002; Yasuda, 2004)."	Definite
[87]	KOGO12	"Synergies between human-related perturbations in marine ecosystems (i.e. eutrophication, overfishing and habitat modification) and climate changes have been shown as plausible causal factors of the jellyfish increase (Richardson *et al*., 2009)."	Possible
[88]	LUCA12	"Potential (direct or indirect) causal relationships between mass occurrences and anthropogenic disturbances such as eutrophication (Arai 2001; Ishii 2001), overfishing (Lynam *et al*., 2006; Daskalov *et al*., 2007; Pauly *et al*., 2009), translocations (Reusch *et al*., 2010), habitat modification (Purcell *et al*., 2007; Lo *et al*., 2008) as well as hydroclimatic variability (Lynam *et al*., 2004; 2010; Purcell, 2005; Molinero *et al*., 2008; Richardson *et al*., 2009) have received the most attention."	Possible
[89]	MALE12	"Climate scenarios along with overfishing in some traditional fishing areas may contribute to further increases in jellyfish outbreaks (Barausse *et al*., 2011)." AND "among these, species translocation, overfishing and eutrophication were convincingly linked to jellyfish blooms (Richardson *et al*., 2009)." AND "Finally, habitat modifications in particular marine constructions which offer suitable hard substrate to polyps may accelerate the proliferation of jellyfish blooms (Duarte *et al*., in press)."	Possible
[90]	MILL12	"A number of hypotheses have been considered to explain pelagic jellyfish biomass increases, including: introduction to exotic environments (Graham and Bahya, 2007); eutrophication (hypoxia) (Arai, 2001; Graham, 2001; Parsons & Lalli, 2002; Purcell *et al*., 2001); food web alteration (Condon *et al*., 2012; Pauly *et al*., 1998; Purcell & Arai, 2001); and climate variability and change (Costello *et al*., 2006; Purcell, 2005)."	Possible
[91]	MIRA12	"Literature highlights different reasons for causes of "abnormal true blooms" of jellyfish, including anthropogenic sources (eutrophication), fishing pressure (overfishing), aquaculture, construction (human modification of aquatic habitats, altering coastal waters and circulation), climate change, and invasions (translocations) (Purcell *et al*., 2007; Richardson *et al*., 2009; Purcell, 2012)."	Definite

[92]	MORI12	"It has been hypothesized that increasing hypoxia in coastal habitats will give jellyfish a competitive advantage over fish, as jellyfish are more tolerant to low dissolved oxygen levels (Richardson *et al*., 2009)." AND "Additionally, Shoji *et al.*, (2010) reported that abundance of moon jellyfish increased in bottom waters with low dissolved oxygen levels."	Possible
[93]	PURC12	"Reviews have proliferated recently speculating that jellies have benefited from human-caused changes, including climate change, eutrophication, overfishing, coastal construction, and species introductions (Purcell et al. 1999, 2001, 2007; Arai 2001; Mills 2001; Pauly & Palomares 2001; Purcell 2005; Graham & Gayha 2007; Richardson et al. 2009; Dong et al. 2010; Uye 2010)." AND "When the populations of forage fish are reduced by fishing, zooplanktivorous jellies have flourished, presumably owing to reduced competition for food, as for *Mnemiopsis leidyi* ctenophroes in the Black Sea (Daskalov et al. 2007)." AND "The authors…" [Daskalov et al. 2007] "…conclude that observed increases in jellies (first of *Aurelia aurita* medusa in 1977-1980 and second of *M. leidyi* ctenophores in 1989-1994 – were "triggered by intense fishing resulting in system-wide trophic cascades"". AND "Accumulating evidence suggests that high N:P ratios shift the phytoplankton community from a diatom- to a flagellate-based food web, which may favour jelly blooms (Purcell et al. 2007)". AND "In Bermuda, the sizes and densities of *Cassiopea* spp. medusa and the nutrient concentrations were greater where human densities were high than where they were low (Stoner et al. 2001). This study is, to my knowledge, the first direct test of eutrophication effects on jelly populations. These studies suggest that zooxanthellate medusa may flourish in habitats with high inputs of organic matter." AND "Increased jellyfish populations have been attributed to salinity changes in semi enclosed bodies of water owing to climate varitaions as well as human perturbations (Purcell et al. 2007)." AND "Analysis of CPR data on plankton and nematocysts plus temperature from 1949-2005 and cod spawning stock biomass in the North Sea showed that the decline of cod (presumably due at least in part to overfishing), which coincided with a temperature increase in the mid-1980s, caused a trophic cascade that led to "a proliferation of jellyfish" after the mid-1980s (Kirby et al. 2009)." AND "Oguz et al. (2008) concluded that a combination of overfishing, nutrient enrichment, and climate shift to a warm regime was involved in the 1989-1990 anchovy collapse and outbreak of *M. leidyi*."	Possible
[94]	PRES12	"The current debate on the causes of such phenomena emphasize the role of synergistic effects of overfishing, eutrophication, climate changes, translocation, and habitat modification as potential underlying mechanisms triggering favourable conditions for jellyfish populations (Mills, 2001; Purcell, 2005; Hay, 2006; Molinero *et al*., 2008; Richardson *et al*., 2009)." AND "Such long-term records, although not continuous, have shown that there is an increase in abundance of some hydrozoan medusa species in the last decade (Benovic *et al*., 2005; Lucic *et al*., 2009a), which is probably associated with the increase of the average temperature and its subsequent influence on the plankton structure, although other factors, such as intensified sampling efforts should not be excluded (Lucic *et al*., 2009a)."	Possible
[95]	TOYO12	"Various causes have been proposed for this increase, for example, over-fishing, global warming or eutrophication (Uye, 2008)."	Possible
[96]	VANG12	"It is known that jellyfish and ctenophores can thrive in areas with high anthropogenic impacts such as overfishing, eutrophication and habitat modification (Mills, 2001; Purcell *et al*., 2007; Richardson, 2008; Richardson *et al*., 2009). Moreover, temperate jellyfish species like *M. leidyi* can benefit from the effects of global warming (Purcell, 2005)."	Definite

[97]	ZHAN12	"This attention is largely the result of jellyfish and ctenophore blooms that have caused ecological and economic losses, which are linked intrinsically to overfishing, eutrophication, climate change, and species invasions (reviewed in Purcell *et al*., 2007). Thus, climate change has been reported to be one of the possible reasons for the increasing frequency and intensity of jellyfish blooms, which has been locally indicated in many sea areas. For example, climate-related increases of jellyfish frequency suggest a more gelatinous future for the North Sea (Attrill *et al*., 2007)."	Possible
[98]	ALBA11	"However, other publications suggest that it would be the collapse of the fish populations due to overfishing the cause of the decrease of natural predators of jellyfish, such are tuna or tortises, and therefore, the explosion of jellyfish populations (Hong *et al*., 2008*; Richardson *et al*., 2009)." *mis-cited as "Jiang *et al*., 2008"	Probable
[99]	BAST11	"It has been suggested that, in different places, jellyfish abundance may have increased in response to eutrophication, overfishing, and/or climate change (Arai 2001; Mills 2001; Purcell 2005; Richardson et al 2009)."	
[100]	BAST11A	"There is concern that climate change (Purcell, 2005; Brodeur *et al*., 2008), overfishing (Lynam *et al*., 2006), eutrophication of coastal waters (Arai, 2001), and the development of artificial structures along coastlines (e.g. marinas, aquaculture facilities, see Lo *et al*., 2008) can result in a proliferation of gelatinous organisms with dramatic impacts on human activities (Mills, 2001; Purcell *et al*., 2007; Richardson *et al*., 2009)."	Possible
[101]	COND11	"The proximate causes for these changes are unknown, but likely include a combination of factors, including eutrophication, overharvesting of fish, climate variations, accidental introductions or translocations, increased polyp abundances, and habitat modifications (Purcell *et al*. 2007; Condon & Steinberg 2008)."	Possible
[102]	HOSI11	"Observations from around the world suggest that human activities resulting in species introductions, overfishing, eutrophication, climate change and habitat degradation could lead to more prominent blooms, as well as sustained biomass increases of jellyfish (reviewed by Mills, 2001, Purcell *et al*., 2007, Richardson *et al*., 2009)."	Possible
[103]	IKED11A	"It is thought that environmental changes in Chinese coastal waters such as eutrophication, overfishing and global warming are the causes of the recent massive blooms of *N. nomurai* (Uye, 2008)."	Possible
[104]	LEE11	"The number of jellyfish has been exponentially increasing due to changes in marine environments such as the water temperature increases induced by global warming (Brodeur *et al*., 2008; Attrill *et al*., 2007; Oiso *et al*., 2005)."	Definite
[105]	LILL11	"It has been suggested that targeted removal of the larger fish remaining in ecosystems may cause a progressive pattern of fishing down the food chain until systems are dominated by invertebrates, such as jellyfish (Hay, 2006; Daskalov *et al*., 2007)." AND "In addition, climatic changes and the increase in the number of anthropogenic structures in the sea may result in greater jellyfish abundances (for a review, see Purcell *et al*., 2007)." AND "One of the biggest concerns regarding gelatinous zooplankton is that overfishing, often of planktivorous fish (Richardson *et al*., 2009), may result in increases in gelatinous zooplankton abundance."	Possible
[106]	ROBL11	"In response to increased nutrient inputs generated by agricultural and tourism activities, summer proliferations began in the mid 1990s for both species, especially *C. tuberculata* (46 million individuals in summer 1997; Perez Ruzafa *et al*., 2002)."	Definite
[107]	SALI11	"The cumulative effects of mounting shipping traffic, global warming, ocean acidification, eutrophication, and exploitation of marine living resources have recently favoured their spreading, settlement and sometimes domination of local food webs	Definite

		(Mills, 2001; Byers, 2002).” AND “Therefore, considering that fisheries either contribute directly to increased jellyfish populations or are being impacted by jellyfish or both (e.g. Oguz *et al*., 2008a)...”	
[108]	STON11	“While it is sometimes difficult to ascertain mechanisms driving pelagic jellyfish blooms, it has been suggested that several anthropogenic disturbances are likely involved. These include overfishing (Purcell & Arai, 2001; Lynam *et al*., 2006), nutrient loading (Arai, 2001; Lo & Chen, 2008), marine construction (Lo *et al*., 2008; Hoover & Purcell, 2009), introduction of exotic species (Mills, 2001) increased sedimentation (Arai, 2001) and global climate change (Brodeur *et al*., 2008).”	Probable
[109]	VERI11	“Gelatinous zooplankton of many kinds are receiving increased recognition for their various important ecological roles amidst suggestions that they may benefit from various human-caused deterioration of marine environments, particularly nutrient loading, overfishing, climate change, and introductions (Shiganova & Bulgakova, 2000; Parsons & Lalli, 2002; Purcell, 2005; Purcell *et al*., 2007).”	Possible
[110]	DONG10	“Mounting evidence indicates that the environmental changes caused by intensive human activity (e.g. eutrophication, overfishing, translocations, habitat modification, etc.) and climate change are all contributors to jellyfish blooms (Arai, 2001; Purcell, 2005; Graham & Bayha, 2007; Purcell *et al*., 2007; Uye, 2008; Richardson *et al*., 2009).” AND “The cause of *Cyanea* blooms in the Chinese seas is still a puzzle, but overfishing, eutrophication and increased seawater temperature and salinity were regarded as potentially important factors (Ge & He, 2004; Xian *et al*., 2005).” AND “However, previous case studies in other countries indicated that coastal eutrophication could be an important contributor to the *A. aurita* blooms (Arai, 2001; Mills, 2001).” AND “Eutrophication is considered to be one of important factors contributing to increased jellyfish abundance and blooms (Mills, 2001; Diaz & Rosenberg, 2008).” AND “Therefore, some studies suggested that overfishing might help facilitate the jellyfish outbreaks (Purcell *et al*., 2007; Lynam *et al*., 2005; 2006; Richardson *et al*., 2009).” AND “The increased availability of hard substrate habitats caused by human activities may benefit jellyfish populations, for example, the novel habitats from aquaculture (e.g., live and dead shellfish, rafts, calcareous debris and farm materials) potentially provide more hard substrate for benthic polyp proliferation (Holst & Jarms, 2007; Purcell, 2007; Richardson *et al*., 2009; Lo *et al*., 2008).” AND “Global warming might also lead to increasing populations of jellyfish because it could affect the distribution, growth and ephyrae production of medusae (Richardson *et al*., 2009).”	Possible
[111]	DUPO10	“Potential causes have been investigated in different places of the world, and factors such as temperature (Purcell *et al*., 1999; Purcell, 2005), salinity (Purcell *et al*., 1999; Purcell, 2005), pH (Attril. *et al*., 2007), North Atlantic Oscillation (NAO) (Lynam *et al*., 2004; Purcell, 2005; Attrill *et al*., 2007) and the light regime (Sornes *et al*., 2007; Lo *et al*., 2008) have been addressed.”	Possible
[112]	FERG10	“Many of these commercially important fish feed on the same plankton food as jellyfish (Arai, 1997; Arai, 1988, Purcell & Arai, 2001) and their dramatic decline would therefore probably improve conditions for jellyfish and open up food resources (Hay, 2006). Moreover, eutrophication is often associated with low dissolved oxygen levels and increased turbidity, conditions more favorable to jellyfish than to energetic visual predators such as fish (Purcell *et al*., 2007). Finally, oceanic warming, caused by climate change, is incriminated in the increase in jellyfish numbers. It has been shown that	Probable

		warmer temperatures increase asexual reproduction and the ratio of jellyfish to polyps in some hydrozoan species (Purcell, 2005)."	
[113]	FUEN10	"The extraordinary success of *M. leidyi* in the Black, Azov, and Caspian seas has been attributed to the lack of predators in combination with the deteriorated conditions for fish populations in those waters due to eutrophication, pollution, and over fishing (e.g., Purcell *et al*., 2001; Oguz, 2005)." AND "In the NW Mediterranean sea, over-fishing is believed to be one reason that gelatinous zooplankton seem to be increasing in abundance in recent decades (Gili & Pages, 2005)."	Definite
[114]	LICA10	"…these outbreaks have been attributed variously to alterations in the trophic structure of marine ecosystems owing to overfishing, and to hydroclimatic effects, since sea temperature can influence jellyfish life cycles and reproductive output (Purcell *et al*., 2007; Boero *et al*., 2008)."	Definite
[115]	MCNA10	"In some marine ecosystems, gelatinous zooplankton (e.g. ctenophores, salps, medusae, siphonophores) appear to be increasing in abundance and may be undergoing shifts and/or expansions in their historical seasonal distribution, possibly taking advantage of regime shifts from pollution, overfishing and other major environmental change (Mills, 1995; Sullivan *et al*., 2001; Mills, 2001; Purcell, 2005; Purcell *et al*., 2007)." AND "Recent increases in ctenophore abundance have been attributed to various marine ecosystem alterations, including localized warming of seawater masses and the removal of ctenophore predators, such as butterfish, and competitors, such as zooplanktivorous fishes, from overfishing (Mills, 1995; Purcell *et al*., 2001; Sullivan, 2001; Costello *et al*., 2006; Link & Ford, 2006; Purcell *et al*., 2007)."	Probable
[116]	PANA10	"The mechanisms behind these increases in gelatinous populations are open to speculation but may include climate change (Brodeur *et al*., 1999; Atkinson *et al*., 2004; Lynam *et al*., 2004; 2005; Purcell & Decker, 2005; Purcell, 2005; Link & Ford, 2006; Attrill *et al*., 2007), species introductions (Shiganova, 1998; Mills, 2001; Graham & Bayha, 2007), eutrophication (Purcell *et al*., 1999; Arai, 2001; Zian, 2005), removal of commercially important fish stocks (Parsons & Lalli, 2002; Lynam *et al*., 2006), or some interaction of these factors (Purcell *et al*., 2007 cited in Brodeur *et al*., 2008)."	Possible
[117]	PILL10	"Among anthropogenic causes, the removal of predatory fish by coastal fisheries has been linked to population explosions of jellyfish, due to reduced predation pressure (Xian *et al*., 2005; Purcell *et al*., 2007)."	Possible
[118]	PRIE10	"A number of causes have been proposed to account for the occurrence of gelatinous zooplankton (both jellyfish and ctenophore) blooms, such as eutrophication (Arai, 2001), increases in artificial hard substrata for attachment of polyps (Parsons & Lalli, 2002; Holst & Jarms, 2007), exotic translocations (Purcell *et al*., 2001), overfishing (Pauly *et al*., 2002), and climate change (Purcell, 2005)."	Possible
[119]	ROOH10	"Overfishing, eutrophication and global warming have also been suggested as triggering factors for explosions in both native and introduced waters (Mills, 2001; Lynam *et al*., 2006: Bilio & Niermann, 2004; Purcell, 2005)."	Possible
[120]	TOUZ10	"Jellyfish have increased in numbers during the last 20 years, possibly as a consequence of global warming, overfishing and eutrophication (Mills, 2001; Purcell, 2005; Richardson *et al*., 2009)."	Possible
[121]	WINA10	"Many anthropogenic influences may be contributing to recent jellyfish blooms, including global warming, reduction of fish stocks, and eutrophication (reviewed in Purcell *et al*., 2007)." AND "In general, gelatinous zooplankton appear to tolerate, and perhaps benefit from, changes humans have brought to the oceans, such as eutrophication, hypoxia, pollution, and overfishing (Mills, 2001; Purcell, 2005; Purcell *et al*., 2007)."	Possible

[122]	ZAVO10	"Thus, it was suggested that the increase in the numbers of scyphomedusae *Chrysaora quinquecirrha* and *Aurelia aurita* in the Gulf of Mexico was a consequence of the increased trophic flow due to eutrophication and overfishing (Graham, 2001)."	Possible
[123]	DAWS09	"…and environmental correlations with blooming proposed for eutrophication (Arai, 2001), overfishing (Mills, 2001; Brodeur *et al*., 2002), and species introductions (Graham *et al*., 2003; Holland *et al*., 2004; see also Purcell *et al*., 2007)."	Possible
[124]	GIBB09	"However, there is no agreement about the underlying cause of the bloom increases and a number of hypotheses have been advanced, including alien translocations (Purcell *et al*., 2001), eutrophication (Arai, 2001), an increase in hard substrata for polyp attachment in the case of cnidarians (Parsons & Lalli, 2002), overfishing (Banse, 1990; Pauly *et al*., 2002; Link & Ford, 2006) and climate change (Brodeur *et al*., 1999; Purcell, 2005; Link & Ford, 2006)." AND "Many shelf populations of fishes are, or have been, heavily exploited, and it would appear that some populations of jellyfish have expanded in size to take advantage of the vacant ecological space (e.g. Lynam *et al*., 2006)."	Possible
[125]	HAMN09	"Blooms are one aspect of a metagenic life cycle of alternating asexual and sexual reproduction but are also enhanced by human activities through species introductions, commercial fishing activity, or coastal eutrophication (Arai, 2001; Mills, 2001; Purcell *et al*., 2007)." AND "It is seemingly strange that huge populations of *Chrysaora* species can be maintained worldwide, year to year, with abundances increasing locally along open continental shelves in response to increases in food due to eutrophication (Arai, 2001) or decreases in competitors due to overfishing (Mills, 2001; Brodeur *et al*., 2002; Lynam *et al*., 2006)." AND "Increases in the abundance and distribution of *Cassiopea* have been related to anthropogenic species introductions (Holland *et al*., 2004)." AND "Overfishing promotes blooms of *Chrysaora* (Lynam *et al*., 2006) and *Cyanea* (Xian *et al*., 2005)."	Definite
[126]	HOOV09	"In Taiwan, aquaculture rafts enhanced *A. aurita* jellyfish populations, probably because of increased substrate availability, shading, and restricted water exchange in a coastal lagoon (Lo *et al*., 2008)."	Probable
[127]	LILL09	"Jellyfish populations may be increasing in biomass at existing sites, undergoing range expansions into new areas and in addition non-native invasive species may proliferate, with all these processes contributing to overall increases in jellyfish prevalence (Mills, 2001)."	Definite
[128]	LIU09	"The blooms may be related to the combinations of several factors (Purcell *et al*., 2000), including climate change, especially warming (Uye & Ueta, 2004; Purcell, 2005; Attrill *et al*., 2007), eutrophication (Arai, 2001), overfishing (Zaitsev, 1992; Kideys & Gucu, 1995; Ishii & Bamstedt, 1998), and addition of hard surfaces to coastal waters (Lo *et al*., 2009)."	Possible
[129]	PAUL09	"Jellyfish appear to have a competitive advantage over fish in hypoxic conditions (Sagasti *et al*., 2001). Such adaptation can lead to the dominance of jellyfish in a highly stressed ecosystem, as reported for example by Lynam *et al*., (2006) for the Benguela upwelling ecosystem."	Possible
[130]	RICH09	"Available evidence suggests a suite of human activities might act separately and potentially synergistically to result in outbreaks of some jellyfish species (Fig. 2)." [Caption for Figure 2 cites the following sources for summary of the impacts of habitat modification (Lo et al. 2008), translocations (Graham & Bayha 2007), overfishing (Bakun & Weeks 2006), eutrophication (Purcell et al. 2007), and climate change (Purcell et al. 2007) on jellyfish outbreaks.] AND "For example, in	

		the productive northern Benguela upwelling system off the coast of Namibia, intense fishing has decimated sardine stocks, and this once-productive fisheries system is now dominated by jellyfish such as *Chrysaora* (Lynam et al 2006). It is likely that the collapse of the sardine stocks lowered the predation pressure on jellyfish and increased their available food resources (Bakun & Weeks 2004; Bakun & Weeks 2006)." AND "Major jellyfish outbreaks have followed overexploitation and collapse of a locally dominant, small filter-feeding fish stock (e.g. anchovy, sardine or herring) in situations where another rapidly responding, similar fish species is not available as an adequate replacement. For example, in the northern Benguela upwelling system, where intense fishing decimated sardine stocks and jellyfish now dominate (Lynam et al. 2006)." AND "When translocated ctenophores exploded in abundance following the anchovy collapse in the Black Sea (Shiganova 1998), there was no obvious replacement. A similar episode of anchovy collapse and ctenophore explosion occurred in the Caspian Sea (Daskalov 2007) and, following a similar general pattern, there was a decade-long increase in jellyfish abundance in the Bering Sea (Brodeur et al. 2008) following a lasting decline in herring abundance." AND "Coastal eutrophication encourages phytoplankton blooms that can ultimately lead to jellyfish outbreaks (Purcell et al 2001)." AND "It has been hypothesised that such a food web supports fewer fish, marine mammals, turtles and seabirds because of the smaller average food size and longer food chain (Cushing 1989) and is more favourable for jellyfish than for fish (Parsons & Lalli 2002)." AND "Such 'dead zones' are thought to favour jellyfish (Graham 2001) because of their lower oxygen and food demands compared with those of commercially valuable fish and shellfish." AND "Such flagellate-dominated food webs might be more favourable for jellyfish than for fish (Parsons & Lalli 2002)." AND "Purcell et al. (2007) found that the abundance of 11 out of the 15 temperate jellyfish species that they reviewed increased as waters warmed. Gibbons and Richardson (2008) showed that variations in jellyfish abundance over 50 years in the oceanic North Atlantic are temperature dependent, with more jellyfish occurring in warmer years." AND "Some jellyfish, especially ctenophores, are robust to ballast water exchange, and have often increased in abundance once translocated to new areas where the dominant planktivorous fish in the system has been removed (Daskalov et al. 2007). For example, following the anchovy stock collapse in the Black Sea, apparently due to overfishing, the abundance of the ctenophore *Mnemiopsis*, which had been introduced some years earlier, abruptly exploded to dominate the pelagic ecosystem (Zaitsev 1992)." AND "For example, the spotted jellyfish *Phyllorhiza punctata* from the Pacific Ocean has become a nuisance following its translocation into the Gulf of Mexico (Graham and Bahya 2007)." AND "These are characteristic of opportunistic 'weed species' and would appear to give jellyfish an edge over fish in environments stressed by climate change, eutrophication and overfishing (Bakun & Weeks 2006)."	
[131]	SKIK09	"Blooms of cnidarian medusae are becoming increasingly common and occur either despite, or in response to, an array of environmental factors considered unfavorable to many other organisms, including eutrophication, climate change and overfishing (Brodeur *et al*., 1999; Arai, 2001; Mills, 2001; Purcell, 2005; Purcell *et al*., 2007; Richardson *et al*., 2009)."	Definite
[132]	BOER08	"These studies suggest several potential causal relationships between jellyfish mass occurrence and anthropogenic perturbations, such as global warming, eutrophication, overfishing (Mills, 1995; CIESM, 2001; Purcell *et al*., 2001; 2007; Daskalov, 2002; Parsons & Lalli, 2002; Purcell, 2005; Tatsuki, 2005) or the increase of available hard substrates (e.g. dams, artificial reefs, shells from bivalve aquaculture), enhancing the chance for suitable planula settlement and subsequent	Possible

		ephyra production (Pages, 2001; Holst & Jarms, 2007).” AND “Human activities, especially overfishing, can force marine food webs toward the increase of jellyfish abundances (CIESM, 2001; Mills, 2001; Purcell *et al*., 2001; Niermann, 2004; Lynam *et al*., 2005; Xian *et al*.,2005; Hay, 2006; Daskalov *et al*., 2007).”	
[133]	DARY08	“Jellyfish blooms are considered a symptom of species introduction, over-fishing, eutrophication, and climate change (Mills, 2001; Purcell, 2005; Hay, 2006).”	Probable
[134]	HONG08	“In some areas, over-fishing has altered community structure suggesting that trophic controls may have allowed jellyfish blooms, whereas in other areas recent shifts in climate and ocean condition may have driven these unprecedented increases in jellyfish abundance (Purcell, 2005; Xian *et al*., 2005).”	Possible
[135]	LAMP08	“For example, it has been suggested that jellyfish replace bony fish in some ecosystems in response to climate change (Mills, 2001; Purcell *et al*., 2007).”	Possible
Lo *et al*. (2008)	LO08	“Concerns that jellyfish populations are increasing have stimulated speculation about the possible causes, including climate change, eutrophication, overfishing, invasions, marine construction, and water diversion (e.g. Arai, 2001; Mills, 2001; Oguz, 2005a, b; Purcell, 2005; Hay, 2006; Graham & Bayha, 2007).” AND “Attrill *et al*., (2007) confirmed a significant negative correlation between nematocyst occurrence in continuous plankton recorder (CPR) samples and pH (range 8.0-8.3) during the period 1971-1995, and suggested that pelagic cnidarians may benefit from this change because of the detrimental effects of high pH on calcifying organisms....” AND “Environmental conditions that seem to favour jellyfish have high nutrients, but low Si:N ratios, characteristic of eutrophic coastal waters (Sommer *et al*., 2002).”	Possible
[136]	MARI08	“In particular, it was stated that as Cnidaria feed high on marine food chains and therefore they can compete with fishes for food, massive removal of top-predator fishes by commercial fishing efforts could open up food resources for jellyfish (Mills, 2001). In addition, models indicated that the predicted pH decrease in oceans with rising CO2 could induce long-term jellyfish increase over the next 100 years (Attrill *et al*., 2007).”	Possible
[137]	ROOH08	“The explosion of *Mnemiopsis leidyi* in the Caspian Sea shortly after its introduction could be linked with the inability of kilka to compete with this ctenophore for zooplankton prey following intensive overfishing activities at the end of the 1991 - 2001 period (Bilio & Niermann, 2004; Daskalov & Mamedov, 2007).” AND “Previous studies have indicated overfishing, eutrophication and climate changes (global warming) as possible factors triggering population explosions in both native and introduced comb jellies (Mills, 2001; Bilio & Niermann, 2004; Purcell, 2005; Lynam *et al*., 2006).”	Possible
[138]	ATTR07	“Alternatively, increasing jellyfish frequency may be as an opportunistic response to the reduction in other commercially caught predators (Hughes *et al*., 2005).”	Possible
[139]	MOLL07	“Eutrophication has been suggested to be an important environmental factor for increasing mass occurrence of jellyfish, possibly accelerated in combination with overfishing (Mills, 2001). Jellyfish are tolerant to low dissolved oxygen concentrations (Purcell *et al*., 2001; Rutherford & Thuesen, 2005) and they are therefore likely to take over oxygen depleted waters previously inhabited by zooplanktivorous fish.”	Possible
[140]	PITT07	“In some cases this has resulted from the introduction of invasive species (Shiganova, 1998, Graham *et al*., 2003)…”	Definite
[141]	PURC07	“Recent concerns that jellyfish populations are increasing have stimulated speculation about possible causes including climate change, eutrophication, overfishing and invasions (e.g. Arai 2001, Mills 2001, Oguz 2005a,b, Purcell 2005, Hay	

		2006, Graham & Bayha 2007).” AND “Warming of the oceans may increase many populations of gelatinous species and also shift the population distributions poleward, as seems to be occurring for the ctenophore *Mnemiopsis leidyi* (Sullivan et al. 2001, Faasse & Bayha 2006, Hansson 2006).” AND “With continued climate warming, the NAO is predicted to move into a stronger positive phase (Osborn 2004), which according to Attrill et al. (2007) would lead to a greater abundance of jellyfish.” AND “Attrill et al. (2007) showed a significant positive correlation of nematocyst occurrence in CPR samples with decreasing pH (range 8.0-8.3) during 1971-1995, and speculated that non-calcifying gelatinous organisms might benefit from detrimental effects of low pH on calcifying organisms.” AND “High N:P ratios shift the phytoplankton community away from diatoms towards flagellates and jellyfish (Nagai 2003).” AND “Fishing may positively affect pelagic cnidarian ctenophore populations by removing predators of the gelatinous species (reviewed in Purcell & Arai 2001, Arai 2005).” AND “Mills (2001) suggested that increases in the siphonophores *Nanomia cara* in the Gulf of Maine could be due to reduction of zooplanktivorous fish species there. Reduction of zooplanktivorous fish populations was implicated when ctenophores and jellyfish replaced fish in the Black Sea and the Benguela Current (Shiganova 1998, Daskalov 2002, Oguz 2005b, Lynam et al. 2006).” AND “Jackson et al. (2001) and Daskalov et al. (2007) discuss how overfishing of one resource after another, in combination with other ecosystem damage, may lead to greater jellyfish and ctenophore populations.” AND “Changes in water flow to the Black Sea were suggested to contribute to changes favouring jellyfish and ctenophores (e.g. Oguz 2005b).” AND “The great success of the introduced ctenophore, *Mnemiopsis leidyi*, in the Black Sea was probably due to many factors, including previous ecosystem damage (reviewed in Oguz 2005a, b), overfishing (e.g. Shiganova 1998, Daskalov 2002), climate variations (e.g. Oguz 2005a) and the initial absence of a controlling predator (Purcell et al. 2001c).”	
[142]	PURC07A	“Similarly, the most recent reports of unusual occurrences of jellyfish are associated with increasing ocean temperatures in those regions (Uye & Uyeta, 2004, S. Uye unpubl.).” AND “Warming ocean temperatures may have several positive effets on jellyfish populations. (1) both long-term population correlations and experimental data show increased jellyfish populations in warm conditions (reviewed by Purcell, 2005).” AND “Thus, warmer ocean temperatures may increase the numbers of jellyfish in the future (Attrill *et al*., 2007).”	Possible
[143]	LINK06	“These increases have been variously attributed to eutrophication, water mass warming, and overfishing (Purcell *et al*., 2001, Shiganova *et al*., 2001, Sullivan *et al*. 2001, Brodeur *et al*., 2002, Gucu, 2002, Weisse *et al*., 2002, Purcell, 2005).”	Probable
[144]	LYNA06	“An implied endpoint of this 'fishing down marine food webs' is a proliferation of previously suppressed gelatinous plankton (jellyfish; Pauly *et al*., 2002) thriving on the food no longer consumed by fish.” AND “Jellyfish biomass has increased substantially in several locations worldwide, perhaps as a consequence of fishing (Mills, 2001).”	Possible
[145]	FERN05	“A decade later, the jellyfish blooms started in response to the increased nutrient inflow and lagoon eutrophication (Perez Ruzafa & Arcos, 2004). Although the jellyfish blooms can also depend upon the overfishing of their predators or global warming (Arai, 2001; Mills, 2001), in the Mar Menor the nutrient loading and inherent eutrophication processes seem to be the most probable cause of their successful development.”	Definite
[146]	XIAN05	“Removal of predator fish throughout the world's oceans by commercial fishing efforts (Pauly *et al*., 1998) allows jellyfish populations to expand (Mills & Sommer, 1995), with concomitant blooms.”	Definite

[147]	PURC05	"Bilio & Niermann (2004) proposed that over-fishing of the anchovy stock coincided with climate-induced changes in the food base, causing collapse of the anchovy population, which allowed proliferation of ctenophores."	Probable
[148]	LYNA04	"Jellyfish abundance is increasing in numerous marine ecosystems worldwide, perhaps as a consequence of "regime shifts" associated with climatic change, increasing fishing pressure, or both (Goy *et al*., 1989; Brodeur *et al*., 1999; Brierley *et al*., 2001; Mills, 2001)." AND "Arai (2001) demonstrated that scyphomedusae might benefit from eutrophication and suggested that the high abundance of *C. lamarckii* WND might be linked to eutrophication there." AND "Because jellyfish have the potential to play an important role in ecosystem control or to proliferate following high fishing effort (Purcell & Arai, 2001)...."	Possible
[149]	MILL01	"Although environmental degradation typically leads to species loss, eutrophication can apparently also sometimes lead to increases of jellyfish in local environments; such cases typically involve only single species and may sometimes in fact be non-native species (see Arai, 2000)." AND "Decreasing levels of oxygen (hypoxia) in some bodies of water, often associated with eutrophication, may also favour increases in jellyfish populations (Purcell *et al.,* 2001b)." AND "Perhaps directly related to the loss of this and other fishes, and to increasing eutrophication, the Black Sea has experienced severe outbreaks of three different species of 'jellyfish' in the past 3 decades (Zaitsev & Mamaev, 1997)." AND "…but at the same time, the resident population of *Aurelia aurita* began to increase, perhaps in response to the generally increasing salinity, as large amounts of incoming freshwater were diverted for irrigation (Studenikina *et al*., 1991)." AND "Benovic *et al*., (1987) report a decrease in hydromedusa abundance and species richness in the northern Adriatic, which they believe correlates with declining water quality resulting from increasingly eutrophic nearshore conditions."	Possible

Table S2. Sources cited by papers listed in Table S1 as evidence that anthropogenic stressors cause increases or decreases in jellyfish populations, including the type of study cited and (where applicable) the species studied in the cited source.

Source cited	Abbreviation	Type of study	Species studied in cited source
[150]	AKSN07	Correlative field	Jellyfish not studied
[151]	AKSN09	Correlative field	*Periphylla periphylla*
[152]	ARAI01	Review	
[153]	ARAI05	Review	Various
[154]	ATKI07	Meta-analysis	Salps
[138]	ATTR07	Correlative field	
[155]	BAKU04	Review	
[156]	BAKU06	Review	
[157]	BANS90	Review	
[158]	BARA11	Model	
[159]	BILI04	Review	*Mnemiopsis*
[160]	BILL06	Mensurative field	*Crambionella orsoni*
[132]	BOER08	Review	
[161]	BOER13	Review	Various
[162]	BOLT06	Review	Various
[163]	BRIE01	Mensurative field	*Chrysaora hysocella, Aequorea aequorea*
[164]	BROD99	Correlative field	*Chrysaora melanaster, Cyanea capillata, Pacellophora camtschatica, Aurelia labiata, Aequorea* aequorea
[165]	BROD02	Correlative field	*Chrysaora melanaster*
[166]	BROD08	Correlative field	*Chrysaora melanaster*
[167]	BUCK01	Other (statistical textbook)	Jellyfish not studied
[79]	BROT12A	Meta-analysis	Various
[168]	BYER02	Review	Jellyfish not studied
[169]	CADD93	Review	*Mnemiopsis*
[170]	COND08	Correlative field	*Mnemiopsis*
[62]	COND13	Meta-analysis	Various
[171]	COST06	Correlative field	*Mnemiopsis*
[172]	COST06A	Mensurative field	*Mnemiopsis*
[173]	DALY10	Correlative field	*Pelagia noctiluca*

[174]	DASK02	Model	*Mnemiopsis*
[175]	DASK07	Correlative field	*Mnemiopsis*
[176]	DASK07A	Model	*Mnemiopsis*
[177]	DAWS05	Phylogenetic	*Aurelia* sp.
[178]	DECK04	Experimental lab	*Mnemiopsis*
[179]	DECK07	Model	*Chrysaora quinquecirrha*
[180]	DIAZ08	Review	Jellyfish not studied
[110]	DONG10	Review	*Aurelia* sp. *Cyanea nozakii, Nemopilema nomurai*
[82]	DONG12	Mensurative field	*Aurelia* sp.
[63]	DUAR13	Experimental field	*Chrysaora quinquecirrha, Cotylorhiza tuberculata*
[181]	EIAN99	Mensurative field	*Periphylla periphylla*
[124]	GIBB09	Correlative field	Various
[64]	GIBB13	Review	
[182]	GOY89	Correlative field	*Pelagia noctiluca*
[183]	GRAH01	Correlative field	*Chrysaora quinquecirrha, Aurelia* sp.
[184]	GRAH03	Mensurative field	*Phyllorhiza punctata*
[185]	GRAH07	Review	
[186]	GUCU02	Model	*Menmiopsis*
[187]	HAN10	Experimental lab	*Aurelia* sp.
[188]	HANS06	Observational	*Mnemiopsis*
[84]	HARA12	Model	*Aurelia* sp., *Cyanea capillata*
[189]	HAY06	Review	
[190]	HOLL04	Phylogenetic	*Cassiopea*
[191]	HOLS07	Experimental lab	*Aurelia* sp. *Cyanea capillata, Cyanea lamarckii, Chrysaora hysocella*
[192]	HOLS12	Experimental lab	*Aurelia* sp. *Cyanea capillata, Cyanea lamarckii, Chrysaora hysocella*
[126]	HOOV09	Experimental lab	*Aurelia* sp.
[193]	HUGH05	Review	
[194]	ISHI98	Mensurative field	*Aurelia* sp.
[195]	ISHI08	Experimental lab	*Aurelia* sp.
[196]	JACK01	Review	
[197]	JANB13	Mensurative field	*Aurelia* sp.
[134]	JIAN08	Model	*Aurelia* sp.

[198]	KAWA06	Descriptive lab	*Nemopilema nomurai*
[66]	KAWA13	Experimental lab	*Nemopilema nomurai*
[199]	KIDE94	Review	*Menmiopsis*, *Aurelia* sp.
[200]	KIDE95	Mensurative field	*Rhopilema nomadica*
[201]	KIDE02	Review	*Mnemiopsis*, *Beroe ovata*
[202]	KIRB09	Correlative field	Various
[203]	KOGO10	Correlative field	*Aurelia* sp., *Chryaora hysocella*, *Cotylorhiza tuberculata*, *Rhizostoma pulmo*
[114]	LICA10	Correlative field	*Pelagia noctiluca*
[127]	LILL09	Review	*Rhizostoma pulmo*, *Rhizostoma octopus*
[143]	LINK06	Mensurative field	
[204]	LIU05	Review	
[128]	LIU09	Experimental lab	*Aurelia* sp.
[205]	LO08	Experimental field	*Aurelia* sp.
[206]	LO08A	Correlative field	*Aurelia* sp.
[88]	LUCA12	Review	Various
[48]	LUCA14	Meta-analysis	Various
[207]	LUCI09	Mensurative field	Various
[148]	LYNA04	Correlative field	*Aurelia* sp. *Cyanea capillata*, *Cyanea lamarckii*
[208]	LYNA05	Correlative field	*Aurelia* sp., *Cyanea capillata*
[144]	LYNA06	Correlative field	*Chrysaora hysocella*, *Aequorea forskalea*
[209]	LYNA10	Correlative field	*Aurelia* sp. *Cyanea* spp.
[210]	LYNA11	Correlative field	*Aurelia* sp., *Cyanea capillata*, *Cyanea lamarckii*
[49]	MAKA14	Experimental field	*Aurelia* sp.
[89]	MALE12	Mensurative field	*Aurelia* sp.
[211]	MATV12	Molecular	*Aurelia* sp.
[212]	MIAN14	Correlative field	*Chrysaora plocamia*
[149]	MILL01	Review	Various
[213]	MILL95	Review	
[214]	MILLA	Mensurative field	*Maeotias inexspectata*, *Blackfordia virginica*
[215]	MIYA02	Mensurative field	*Aurelia* sp.
[216]	MOLI05	Correlative field	*Various*
[217]	MOLI08	Model	
[218]	MOLI08A	Correlative field	*Various*

[219]	NAGA03	Correlative field	*Aurelia* sp. *Cyanea nozakii, Dactylometra pacifica, Beroe ovata,* salps
[220]	NAGV12	News commentary	
[221]	NIER04	Unable to access	
[222]	NOMU98	Correlative field	*Aurelia* sp.
[223]	OCCH09	Not in English	
[224]	OGUZ05	Review	
[225]	OGUZ05A	Review	
[226]	OGUZ08	Model	*Mnemiopsis*
[227]	OISO05	Medical	*Porpita porpita*
[228]	PARS02	Review	
[229]	PAUL98	Meta-analysis	
[230]	PAUL02	Review	
[231]	PAUL03	Review	
[129]	PAUL09	Review	
[232]	PERE02	Correlative field	*Cotylorhiza tuberculata, Rhizostoma pulmo*
[233]	PERE04	Review	
[118]	PRIE10	Experimental lab	*Cotylorhiza tuberculata*
[234]	PURC99	Review	*Chrysaora quinquecirrha, Pelgia noctiluca*
[235]	PURC01	Review	
[236]	PURC01A	Review	
[237]	PURC01B	Review	
[147]	PURC05	Review	
[238]	PURC05A	Correlative field	*Menmiopsis, Chrysaora quinquecirrha*
[141]	PURC07	Review	
[239]	PURC09	Mensurative field	*Aurelia* sp.
[240]	PURC10	Mensurative field	Various
[93]	PURC12	Review	
[241]	QIU14	News commentary	
[242]	REUS10	Phylogenetic	*Mnemiopsis*
[243]	RICH08	Review	
[130]	RICH09	Review	
[244]	RIIS12	Review	*Aurelia* sp., *Mnemiopsis*
[245]	ROBI14	Experimental lab	*Mnemiopsis*

[246]	ROUX13	Review	*Chrysaora hysocella, Aequorea forskalea*
[247]	RUTH05	Experimental lab	*Aurelia* sp., *Cyanea capillata, Phacellophora camtschatica, Aequorea victoria, Polyorchis penicillatus, Clytia gregaria, Euphysa flammea, Eutonina indicans, Halitholus, Sarsia, Muggiaea atlantica*
[248]	SAGA01	Experimental lab	*Obelia bicuspidate*
[249]	SHIG97	Review	*Mnemiopsis*
[250]	SHIG98	Review	*Mnemiopsis*
[251]	SHIG00	Mensurative field	*Aurelia* sp., *Mnemiopsis, Beroe ovata*
[252]	SHIG01	Review	*Mnemiopsis*
[253]	SHIR08	Unable to access	
[254]	SHOJ10	Correlative field	*Aurelia sp.*
[255]	SOMM02	Review	
[256]	SORN07	Mensurative field	*Periphylla periphylla*
[108]	STON11	Correlative field	*Cassiopea* sp.
[257]	STUD91	Review	*Mnemiopsis*
[258]	SULL01	Correlative field	*Mnemiopsis*
	SULL01	Correlative field	*Mnemiopsis*
[259]	TATS05	Unable to access	
[260]	THUE05	Experimental lab	*Aurelia* sp., *Phacellophora camtschatica, Chrysaora quinquecirrha*
[261]	UTNE10	Mensurative field	*Aequorea forskalea, Chrysaora hysoscella*
[262]	UYE04	Social survey	*Aurelia* sp., *Chrysaora melanaster*
[263]	UYE08	Review	*Nemopilema nomurai*
[264]	UYE11	Review	*Nemopilema nomurai, Aurelia* sp.
[265]	WEBS12	Experimental lab	*Aurelia* sp.
[266]	WEIS02	Mensurative field	*Mnemiopsis*
[267]	WIDM05	Experimental field	*Aurelia sp.*
[146]	XIAN05	Correlative field	*Sandeiria malayensis*
[268]	YASU04	Unable to access	
[269]	YOON	Correlative field	*Nemopilema nomurai*

[270]	ZAIT92	Review	*Mnemiopsis*
[271]	ZAIT97	Review	*Mnemiopsis*

References

[1] Benedetti-Cecchi, L., Canepa, A., Fuentes, V., Tamburello, L., Purcell, J.E., Piraino, S., Roberts, J., Boero, F. & Halpin, P. 2015 Deterministic Factors Overwhelm Stochastic Environmental Fluctuations as Drivers of Jellyfish Outbreaks. *PLoS One* **10**. (doi:10.1371/journal.pone.0141060).

[2] Boero, F. 2015 The future of the Mediterranean Sea Ecosystem: towards a different tomorrow. *Rendiconti Lincei-Scienze Fisiche E Naturali* **26**, 3-12. (doi:10.1007/s12210-014-0340-y).

[3] Chiaverano, L.M., Graham, W.M. & Costello, J.H. 2015 Parasites alter behavior, reproductive output, and growth patterns of Aurelia medusae in a marine lake. *Mar. Ecol.-Prog. Ser.* **540**, 87-98. (doi:10.3354/meps11513).

[4] Conley, K. & Uye, S. 2015 Effects of hyposalinity on survival and settlement of moon jellyfish (Aurelia aurita) planulae. *J. Exp. Mar. Biol. Ecol.* **462**, 14-19. (doi:10.1016/j.jembe.2014.10.018).

[5] Duarte, C.M., Fulweiler, R.W., Lovelock, C.E., Martinetto, P., Saunders, M.I., Pandolfi, J.M., Gelcich, S. & Nixon, S.W. 2015 Reconsidering Ocean Calamities. *Bioscience* **65**, 130-139. (doi:10.1093/biosci/biu198).

[6] Feng, S., Zhang, F., Sun, S., Wang, S.W. & Li, C.L. 2015 Effects of duration at low temperature on asexual reproduction in polyps of the scyphozoan Nemopilema nomurai (Scyphozoa: Rhizostomeae). *Hydrobiologia* **754**, 97-111. (doi:10.1007/s10750-015-2173-9).

[7] Feng, S., Zhang, G.T., Sun, S., Zhang, F., Wang, S.W. & Liu, M.T. 2015 Effects of temperature regime and food supply on asexual reproduction in Cyanea nozakii and Nemopilema nomurai. *Hydrobiologia* **754**, 201-214. (doi:10.1007/s10750-015-2279-0).

[8] Giron-Nava, A., Lopez-Sagastegui, C. & Aburto-Oropeza, O. 2015 On the conditions of the 2012 cannonball jellyfish (Stomolophus meleagris) bloom in Golfo de Santa Clara: a fishery opportunity? *Fisheries Management and Ecology* **22**, 261-264. (doi:10.1111/fme.12115).

[9] Greene, C., Kuehne, L., Rice, C., Fresh, K. & Penttila, D. 2015 Forty years of change in forage fish and jellyfish abundance across greater Puget Sound, Washington (USA): anthropogenic and climate associations. *Mar. Ecol.-Prog. Ser.* **525**, 153-170. (doi:10.3354/meps11251).

[10] Gusmao, L.M.O., Diaz, X.F.G., de Melo, M., Schwamborn, R. & Neumann-Leitao, S. 2015 Jellyfish diversity and distribution patterns in the tropical Southwestern Atlantic. *Mar. Ecol.-Evol. Persp.* **36**, 93-103. (doi:10.1111/maec.12119).

[11] Hosia, A., Augustin, C.B., Dinasquet, J., Granhag, L., Paulsen, M.L., Riemann, L., Rintala, J.M., Setala, O., Talvitie, J. & Titelman, J. 2015 Autumnal bottom-up and top-down impacts of Cyanea capillata: a mesocosm study. *J. Plankton Res.* **37**, 1042-1055. (doi:10.1093/plankt/fbv046).

[12] Huang, X.G., Huang, B.Q., Zeng, Y. & Li, S.X. 2015 Effect of dinoflagellates and diatoms on the feeding response and survival of Aurelia sp polyps. *Hydrobiologia* **754**, 179-188. (doi:10.1007/s10750-014-2023-1).

[13] Jaspers, C., Acuna, J.L. & Brodeur, R.D. 2015 Interactions of gelatinous zooplankton within marine food webs INTRODUCTION. *J. Plankton Res.* **37**, 985-988. (doi:10.1093/plankt/fbv068).

[14] Kitajima, S., Iguchi, N., Honda, N., Watanabe, T. & Katoh, O. 2015 Distribution of Nemopilema nomurai in the southwestern Sea of Japan related to meandering of the Tsushima Warm Current. *Journal of Oceanography* **71**, 287-296. (doi:10.1007/s10872-015-0288-2).

[15] Lesniowski, T.J., Gambill, M., Holst, S., Peck, M.A., Alguero-Muniz, M., Haunost, M., Malzahn, A.M. & Boersma, M. 2015 Effects of food and CO2 on growth dynamics of polyps of two scyphozoan species (Cyanea capillata and Chrysaora hysoscella). *Mar. Biol.* **162**, 1371-1382. (doi:10.1007/s00227-015-2660-6).

[16] Makabe, R., Takeoka, H. & Uye, S. 2015 Offshore dispersion of ephyrae and medusae of Aurelia aurita s.l. (Cnidaria: Scyphozoa) from port enclosures: Physical and biological factors. *Journal of Marine Systems* **152**, 75-82. (doi:10.1016/j.jmarsys.2015.08.002).

[17] Marques, R., Cantou, M., Soriano, S., Molinero, J.C. & Bonnet, D. 2015 Mapping distribution and habitats of Aurelia sp polyps in Thau lagoon, north-western Mediterranean Sea (France). *Mar. Biol.* **162**, 1441-1449. (doi:10.1007/s00227-015-2680-2).

[18] Nunes, P., Loureiro, M.L., Pinol, L., Sastre, S., Voltaire, L. & Canepa, A. 2015 Analyzing Beach Recreationists' Preferences for the Reduction of Jellyfish Blooms: Economic Results from a Stated-Choice Experiment in Catalonia, Spain. *PLoS One* **10**. (doi:10.1371/journal.pone.0126681).

[19] Pascual, M., Fuentes, V., Canepa, A., Atienza, D., Gili, J.M. & Purcell, J.E. 2015 Temperature effects on asexual reproduction of the scyphozoan Aurelia aurita s.l.: differences between exotic (Baltic and Red seas) and native (Mediterranean Sea) populations. *Mar. Ecol.-Evol. Persp.* **36**, 994-1002. (doi:10.1111/maec.12196).

[20] Remoundou, K., Diaz-Simal, P., Koundouri, P. & Rulleau, B. 2015 Valuing climate change mitigation: A choice experiment on a coastal and marine ecosystem. *Ecosystem Services* **11**, 87-94. (doi:10.1016/j.ecoser.2014.11.003).

[21] Robinson, K.L., Ruzicka, J.J., Hernandez, F.J., Graham, W.M., Decker, M.B., Brodeur, R.D. & Sutor, M. 2015 Evaluating energy flows through jellyfish and gulf menhaden (Brevoortia patronus) and the effects of fishing on the northern Gulf of Mexico ecosystem. *Ices Journal of Marine Science* **72**, 2301-2312. (doi:10.1093/icesjms/fsv088).

[22] Rupp, F. & Scheurle, J. 2015 The dynamics of the jellyfish joyride: mathematical discussion of the causes leading to blooming. *Mathematical Methods in the Applied Sciences* **38**, 3408-3420. (doi:10.1002/mma.3347).

[23] Sun, M., Dong, J., Purcell, J.E., Li, Y.L., Duan, Y., Wang, A.Y. & Wang, B. 2015 Testing the influence of previous-year temperature and food supply on development of Nemopilema nomurai blooms. *Hydrobiologia* **754**, 85-96. (doi:10.1007/s10750-014-2046-7).

[24] Tiller, R.G., Mork, J., Liu, Y.J., Borgersen, A.L. & Richards, R. 2015 To Adapt or Not Adapt: Assessing the Adaptive Capacity of Artisanal Fishers in the Trondheimsfjord (Norway) to Jellyfish (Periphylla periphylla) Bloom and Purse Seiners. *Marine and Coastal Fisheries* **7**, 260-273. (doi:10.1080/19425120.2015.1037873).

[25] Tseng, L.C., Chou, C., Chen, Q.C. & Hwang, J.S. 2015 Jellyfish assemblages are related to interplay waters in the southern east China Sea. *Continental Shelf Research* **103**, 33-44. (doi:10.1016/j.csr.2015.04.025).

[26] Vansteenbrugge, L., Van Regenmortel, T., De Troch, M., Vincx, M. & Hostens, K. 2015 Gelatinous zooplankton in the Belgian part of the North Sea and the adjacent Schelde estuary: Spatio-temporal distribution patterns and population dynamics. *Journal of Sea Research* **97**, 28-39. (doi:10.1016/j.seares.2014.12.008).

[27] Van Walraven, L., Langenberg, V.T., Dapper, R., Witte, J.I., Zuur, A.F. & van der Veer, H.W. 2015 Long-term patterns in 50 years of scyphomedusae catches in the western Dutch Wadden Sea in relation to climate change and eutrophication. *J. Plankton Res.* **37**, 151-167. (doi:10.1093/plankt/fbu088).

[28] Wang, J.Y., Zhen, Y., Mi, T.Z., Yu, Z.G. & Wang, G.S. 2015 Development of a real-time PCR assay (SYBR Green I) for rapid identification and quantification of scyphomedusae Aurelia sp.1 planulae. *Chin. J. Oceanol. Limnol.* **33**, 974-987. (doi:10.1007/s00343-015-4091-0).

[29] Wang, N. & Li, C.L. 2015 The effect of temperature and food supply on the growth and ontogeny of Aurelia sp 1 ephyrae. *Hydrobiologia* **754**, 157-167. (doi:10.1007/s10750-014-1981-7).

[30] Waryani, B., Siddiqui, G., Ayub, Z. & Khan, S.H. 2015 Occurrence and temporal variation in the size-frequency distribution of 2 bloom-forming jellyfishes, Catostylus perezi (L. Agassiz, 1862) and Rhizostoma pulmo (Cuvier, 1800), in the Indus Delta along the coast of Sindh, Pakistan. *Turkish Journal of Zoology* **39**, 95-102. (doi:10.3906/zoo-1401-13).

[31] Wei, H., Deng, L.J., Wang, Y.H., Zhao, L., Li, X. & Zhang, F. 2015 Giant jellyfish Nemopilema nomurai gathering in the Yellow Sea-a numerical study. *Journal of Marine Systems* **144**, 107-116. (doi:10.1016/j.jmarsys.2014.12.001).

[32] Xie, C.B., Fan, M., Wang, X. & Chen, M. 2015 Dynamic Model for Life History of Scyphozoa. *PLoS One* **10**. (doi:10.1371/journal.pone.0130669).

[33] Yilmaz, I.N. 2015 Collapse of zooplankton stocks during Liriope tetraphylla (Hydromedusa) blooms and dense mucilaginous aggregations in a thermohaline stratified basin. *Mar. Ecol.-Evol. Persp.* **36**, 595-610. (doi:10.1111/maec.12166).

[34] Bagheri, S., Niermann, U., Mansor, M. & Yeok, F.S. 2014 Biodiversity, distribution and abundance of zooplankton in the Iranian waters of the Caspian Sea off Anzali during 1996-2010. *J. Mar. Biol. Assoc. U.K.* **94**, 129-140. (doi:10.1017/s0025315413001288).

[35] Battaglia, P., Musolino, S., Esposito, V., Ammendolia, G., Consoli, P., Andaloro, F. & Romeo, T. 2014 Feeding habits of juvenile fishes belonging to three medusivorous species (Centrolophidae and Nomeidae) from the Strait of Messina (central Mediterranean Sea). *Marine Biology Research* **10**, 927-933. (doi:10.1080/17451000.2013.863357).

[36] Barzideh, Z., Abd Latiff, A., Gan, C.-Y., Benjakul, S. & Abd Karim, A. 2014 Isolation and characterisation of collagen from the ribbon jellyfish (Chrysaora sp.). *International Journal of Food Science and Technology* **49**, 1490-1499. (doi:10.1111/ijfs.12464).

[37] Blackett, M., Licandro, P., Coombs, S.H. & Lucas, C.H. 2014 Long-term variability of the siphonophores Muggiaea atlantica and M-kochi in the Western English Channel. *Progress in Oceanography* **128**, 1-14.

[38] Brodeur, R.D., Barcelo, C., Robinson, K.L., Daly, E.A. & Ruzicka, J.J. 2014 Spatial overlap between forage fishes and the large medusa Chrysaora fuscescens in the northern California Current region. *Mar. Ecol.-Prog. Ser.* **510**, 167-181. (doi:10.3354/meps10810).

[39] De Donno, A., Idolo, A., Bagordo, F., Grassi, T., Leomanni, A., Serio, F., Guido, M., Canitano, M., Zampardi, S., Boero, F., et al. 2014 Impact of Stinging Jellyfish Proliferations along South Italian Coasts: Human Health Hazards, Treatment and Social Costs. *International Journal of Environmental Research and Public Health* **11**, 2488-2503. (doi:10.3390/ijerph110302488).

[40] Gambill, M. & Peck, M.A. 2014 Respiration rates of the polyps of four jellyfish species: Potential thermal triggers and limits. *J. Exp. Mar. Biol. Ecol.* **459**, 17-22. (doi:10.1016/j.jembe.2014.05.005).

[41] Palmieri, M.G., Barausse, A., Luisetti, T. & Turner, K. 2014 Jellyfish blooms in the Northern Adriatic Sea: Fishermen's perceptions and economic impacts on fisheries. *Fisheries Research* **155**, 51-58. (doi:10.1016/j.fishres.2014.02.021).

[42] Tillera, R.G., Mork, J., Richards, R., Eisenhauerd, L., Liu, Y., Nakken, J.-F. & Borgersen, A.L. 2014 Something fishy: Assessing stakeholder resilience to increasing jellyfish (Periphylla periphylla) in Trondheimsfjord, Norway. *Marine Policy* **46**, 72-83. (doi:10.1016/j.marpol.2013.12.006).

[43] Graham, W.M., Gelcich, S., Robinson, K.L., Duarte, C.M., Brotz, L., Purcell, J.E., Madin, L.P., Mianzan, H., Sutherland, K.R., Uye, S.-i., et al. 2014 Linking human well-being and jellyfish: ecosystem services, impacts, and societal responses. *Frontiers in Ecology and the Environment* **12**, 515-523. (doi:10.1890/130298).

[44] Hosia, A., Falkenhaug, T. & Naustvoll, L.-J. 2014 Trends in abundance and phenology of Aurelia aurita and Cyanea spp. at a Skagerrak location, 1992-2011. *Mar. Ecol.-Prog. Ser.* **498**, 103-115. (doi:10.3354/meps10619).

[45] Kogovsek, T., Tinta, T., Klun, K. & Malej, A. 2014 Jellyfish biochemical composition: importance of standardised sample processing. *Mar. Ecol.-Prog. Ser.* **510**, 275-288. (doi:10.3354/meps10959).

[46] Lin, J.-N., Yan, T., Zhang, Q.-C., Wang, Y.-F., Liu, Q. & Zhou, M.-J. 2014 In situ detrimental impacts of Prorocentrum donghaiense blooms on zooplankton in the East China Sea. *Marine Pollution Bulletin* **88**, 302-310. (doi:10.1016/j.marpolbul.2014.08.026).

[47] Liu, C., Zhuang, Z., Chen, S., Shi, Z., Yan, J. & Liu, C. 2014 Medusa consumption and prey selection of silver pomfret Pampus argenteus juveniles. *Chin. J. Oceanol. Limnol.* **32**, 71-80. (doi:10.1007/s00343-014-3034-5).

[48] Lucas, C.H., Jones, D.O.B., Hollyhead, C.J., Condon, R.H., Duarte, C.M., Graham, W.M., Robinson, K.L., Pitt, K.A., Schildhauer, M. & Regetz, J. 2014 Gelatinous zooplankton biomass in the global oceans: geographic variation and environmental drivers. *Global Ecology and Biogeography* **23**, 701-714. (doi:10.1111/geb.12169).

[49] Makabe, R., Furukawa, R., Takao, M. & Uye, S.-i. 2014 Marine artificial structures as amplifiers of Aurelia aurita s.l. blooms: a case study of a newly installed floating pier. *Journal of Oceanography* **70**, 447-455. (doi:10.1007/s10872-014-0249-1).

[50] Melica, V., Invernizzi, S. & Caristi, G. 2014 Logistic density-dependent growth of an Aurelia aurita polyps population. *Ecological Modelling* **291**, 1-5. (doi:10.1016/j.ecolmodel.2014.07.009).

[51] Pikesley, S.K., Godley, B.J., Ranger, S., Richardson, P.B. & Witt, M.J. 2014 Cnidaria in UK coastal waters: description of spatio-temporal patterns and inter-annual variability. *J. Mar. Biol. Assoc. U.K.* **94**, 1401-1408. (doi:10.1017/s0025315414000137).

[52] Randriarilala, F., Kitakado, T., Shiode, D., Sakaguchi, M., Hayashi, T. & Tokai, T. 2014 Density estimation of the giant jellyfish Nemopilema nomurai around Japan using an alternative modified detection function for left truncation in a line transect survey. *Fish. Sci.* **80**, 261-271. (doi:10.1007/s12562-013-0696-4).

[53] De Robertis, A. & Taylor, K. 2014 In situ target strength measurements of the scyphomedusa Chrysaora melanaster. *Fisheries Research* **153**, 18-23. (doi:10.1016/j.fishres.2014.01.002).

[54] Schiariti, A., Morandini, A.C., Jarms, G., Paes, R.v.G., Franke, S. & Mianzan, H. 2014 Asexual reproduction strategies and blooming potential in Scyphozoa. *Mar. Ecol.-Prog. Ser.* **510**, 241-253. (doi:10.3354/meps10798).

[55] Schroeder, R., Branco, J.O., Freitas, F., Jr. & Resgalla, C., Jr. 2014 Preliminary assessment of the jellyfish bycatch captured off southern and southeastern Brazil. *Lat. Am. J. Aquat. Res.* **42**, 289-300. (doi:10.3856/vol42-issue2-fulltext-1).

[56] Sweetman, A.K., Smith, C.R., Dale, T. & Jones, D.O.B. 2014 Rapid scavenging of jellyfish carcasses reveals the importance of gelatinous material to deep-sea food webs. *Proceedings of the Royal Society B-Biological Sciences* **281**. (doi:10.1098/rspb.2014.2210).

[57] Ugland, K.I., Aksnes, D.L., Klevjer, T.A., Titelman, J. & Kaartvedt, S. 2014 Levy night flights by the jellyfish Periphylla periphylla. *Mar. Ecol.-Prog. Ser.* **513**, 121-130. (doi:10.3354/meps10942).

[58] Yoon, W.D., Lee, H.E., Han, C., Chang, S.-J. & Lee, K. 2014 Abundance and distribution of Nemopilema nomurai (Scyphozoa, Rhizostomeae), in Korean waters in 2005-2013. *Ocean Science Journal* **49**, 183-192.

[59] Acevedo, M.J., Fuentes, V.L., Olariaga, A., Canepa, A., Belmar, M.B., Bordehore, C. & Calbet, A. 2013 Maintenance, feeding and growth of Carybdea marsupialis (Cnidaria: Cubozoa) in the laboratory. *J. Exp. Mar. Biol. Ecol.* **439**, 84-91. (doi:10.1016/j.jembe.2012.10.007).

[60] Anninsky, B.E., Finenko, G.A., Datsyk, N.A. & Ignatyev, S.M. 2013 Gelatinous macroplankton in the Black Sea in the autumn of 2010. *Oceanology* **53**, 676-685. (doi:10.1134/s0001437013060015).

[61] Berline, L., Zakardjian, B., Molcard, A., Ourmieres, Y. & Guihou, K. 2013 Modeling jellyfish Pelagia noctiluca transport and stranding in the Ligurian Sea. *Marine Pollution Bulletin* **70**, 90-99. (doi:10.1016/j.marpolbul.2013.02.016).

[62] Condon, R.H., Duarte, C.M., Pitt, K.A., Robinson, K.L., Lucas, C.H., Sutherland, K.R., Mianzan, H.W., Bogeberg, M., Purcell, J.E., Decker, M.B., et al. 2013 Recurrent jellyfish blooms are a consequence of global oscillations. *Proceedings of the National Academy of Sciences of the United States of America* **110**, 1000-1005. (doi:10.1073/pnas.1210920110).

[63] Duarte, C.M., Pitt, K.A., Lucas, C.H., Purcell, J.E., Uye, S.-i., Robinson, K., Brotz, L., Decker, M.B., Sutherland, K.R., Malej, A., et al. 2013 Is global ocean sprawl a cause of jellyfish blooms? *Frontiers in Ecology and the Environment* **11**, 91-97. (doi:10.1890/110246).

[64] Gibbons, M.J. & Richardson, A.J. 2013 Beyond the jellyfish joyride and global oscillations: advancing jellyfish research. *J. Plankton Res.* **35**, 929-938. (doi:10.1093/plankt/fbt063).

[65] Bi, H., Cook, S., Yu, H., Benfield, M.C. & Houde, E.D. 2013 Deployment of an imaging system to investigate fine-scale spatial distribution of early life stages of the ctenophore Mnemiopsis leidyi in Chesapeake Bay. *J. Plankton Res.* **35**, 270-280. (doi:10.1093/plankt/fbs094).

[66] Kawahara, M., Ohtsu, K. & Uye, S.-I. 2013 Bloom or non-bloom in the giant jellyfish Nemopilema nomurai (Scyphozoa: Rhizostomeae): roles of dormant podocysts. *J. Plankton Res.* **35**, 213-217. (doi:10.1093/plankt/fbs074).

[67] Majaneva, S., Berge, J., Renaud, P.E., Vader, A., Stubner, E., Rao, A.M., Sparre, O. & Lehtiniemi, M. 2013 Aggregations of predators and prey affect predation impact of the Arctic ctenophore Mertensia ovum. *Mar. Ecol.-Prog. Ser.* **476**, 87-100. (doi:10.3354/meps10143).

[68] Nastav, B., Malej, M., Malej, A., Jr. & Malej, A. 2013 Is it possible to determine the economic impact of jellyfish outbreaks on fisheries? A Case Study - Slovenia. *Mediterranean Marine Science* **14**, 214-223.

[69] Prudkovsky, A.A. 2013 Trophic role of ambush-foraging hydromedusae in the White Sea. *Mar. Ecol.-Evol. Persp.* **34**, 153-164. (doi:10.1111/maec.12033).

[70] Purcell, J.E., Baxter, E.J. & Fuentes, V.L. 2013 Jellyfish as products and problems of aquaculture. *Advances in Aquaculture Hatchery Technology*, 404-430. (doi:10.1533/9780857097460.2.404).

[71] Quinones, J., Monroy, A., Marcelo Acha, E. & Mianzan, H. 2013 Jellyfish bycatch diminishes profit in an anchovy fishery off Peru. *Fisheries Research* **139**, 47-50. (doi:10.1016/j.fishres.2012.04.014).

[72] Rupp, F. & Scheurle, J. 2013 Analysis of a mathematical model for jellyfish blooms and the Cambric fish invasion. *Discrete and Continuous Dynamical Systems*, 663-672.

[73] Sahu, B.K. & Panigrahy, R.C. 2013 Jellyfish bloom along the south Odisha coast, Bay of Bengal. *Current Science* **104**, 410-411.

[74] Thein, H., Ikeda, H. & Uye, S.-i. 2013 Ecophysiological characteristics of podocysts in Chrysaora pacifica (Goette) and Cyanea nozakii Kishinouye (Cnidaria: Scyphozoa: Semaeostomeae): Effects of environmental factors on their production, dormancy and excystment. *J. Exp. Mar. Biol. Ecol.* **446**, 151-158. (doi:10.1016/j.jembe.2013.05.013).

[75] Xu, Y., Ishizaka, J., Yamaguchi, H., Siswanto, E. & Wang, S. 2013 Relationships of interannual variability in SST and phytoplankton blooms with giant jellyfish (Nemopilema nomurai) outbreaks in the Yellow Sea and East China Sea. *Journal of Oceanography* **69**, 511-526. (doi:10.1007/s10872-013-0189-1).

[76] Astorga, D., Ruiz, J. & Prieto, L. 2012 Ecological aspects of early life stages of Cotylorhiza tuberculata (Scyphozoa: Rhizostomae) affecting its pelagic population success. *Hydrobiologia* **690**, 141-155. (doi:10.1007/s10750-012-1036-x).

[77] Baumann, S. & Schernewski, G. 2012 Occurrence and public perception of jellyfish along the German Baltic coastline. *J. Coast. Conserv.* **16**, 555-566. (doi:10.1007/s11852-012-0199-y).

[78] Brotz, L. & Pauly, D. 2012 Jellyfish populations in the Mediterranean Sea. *Acta Adriat.* **53**, 213-231.

[79] Brotz, L., Cheung, W.W.L., Kleisner, K., Pakhomov, E. & Pauly, D. 2012 Increasing jellyfish populations: trends in Large Marine Ecosystems. *Hydrobiologia* **690**, 3-20. (doi:10.1007/s10750-012-1039-7).

[80] Chen, N.W. & Hong, H.S. 2012 Integrated management of nutrients from the watershed to coast in the subtropical region. *Curr. Opin. Environ. Sustain.* **4**, 233-242. (doi:10.1016/j.cosust.2012.03.007).

[81] Condon, R.H., Graham, W.M., Duarte, C.M., Pitt, K.A., Lucas, C.H., Haddock, S.H.D., Sutherland, K.R., Robinson, K.L., Dawson, M.N., Decker, M.B., et al. 2012 Questioning the Rise of Gelatinous Zooplankton in the World's Oceans. *Bioscience* **62**, 160-169. (doi:10.1525/bio.2012.62.2.9).

[82] Dong, Z., Liu, D., Wang, Y., Di, B., Song, X. & Shi, Y. 2012 A report on a Moon Jellyfish Aurelia aurita bloom in Sishili Bay, Northern Yellow Sea of China in 2009. *Aquatic Ecosystem Health & Management* **15**, 161-167. (doi:10.1080/14634988.2012.689583).

[83] Ferraris, M., Berline, L., Lombard, F., Guidi, L., Elineau, A., Mendoza-Vera, J.M., Lilley, M.K.S., Taillandier, V. & Gorsky, G. 2012 Distribution of Pelagia noctiluca (Cnidaria, Scyphozoa) in the Ligurian Sea (NW Mediterranean Sea). *J. Plankton Res.* **34**, 874-885. (doi:10.1093/plankt/fbs049).

[84] Haraldsson, M., Tonnesson, K., Tiselius, P., Thingstad, T.F. & Aksnes, D.L. 2012 Relationship between fish and jellyfish as a function of eutrophication and water clarity. *Mar. Ecol.-Prog. Ser.* **471**, 73-85. (doi:10.3354/meps10036).

[85] Holst, S. 2012 Morphology and development of benthic and pelagic life stages of North Sea jellyfish (Scyphozoa, Cnidaria) with special emphasis on the identification of ephyra stages. *Mar. Biol.* **159**, 2707-2722. (doi:10.1007/s00227-012-2028-0).

[86] Kim, D.H., Seo, J.N., Yoon, W.D. & Suh, Y.S. 2012 Estimating the economic damage caused by jellyfish to fisheries in Korea. *Fish. Sci.* **78**, 1147-1152. (doi:10.1007/s12562-012-0533-1).

[87] Kogovsek, T., Molinero, J.C., Lucic, D., Onofri, I., Gangai, B., Miloslavic, M., Bonnet, D. & Malej, A. 2012 Interannual size changes of adult Aurelia sp.5 medusae stage in the Marine Protected Area of Mljet Island South Adriatic. *Acta Adriat.* **53**, 233-242.

[88] Lucas, C.H., Graham, W.M. & Widmer, C. 2012 Jellyfish life histories: rol of polyps in forming and maintaining scyphomedusa populations. In *Advances in Marine Biology, Vol 63* (ed. M. Lesser), pp. 133-196. San Diego, Elsevier Academic Press Inc.

[89] Malej, A., Kogovsek, T., Ramsak, A. & Catenacci, L. 2012 Blooms and population dynamics of moon jellyfish in the northern Adriatic. *Cahiers De Biologie Marine* **53**, 337-342.

[90] Miller, M.E.C. & Graham, W.M. 2012 Environmental evidence that seasonal hypoxia enhances survival and success of jellyfish polyps in the northern Gulf of Mexico. *J. Exp. Mar. Biol. Ecol.* **432**, 113-120. (doi:10.1016/j.jembe.2012.07.015).

[91] Miranda, L.S., Morandini, A.C. & Marques, A.C. 2012 Do Staurozoa bloom? A review of stauromedusan population biology. *Hydrobiologia* **690**, 57-67. (doi:10.1007/s10750-012-1048-6).

[92] Moriarty, P.E., Andrews, K.S., Harvey, C.J. & Kawase, M. 2012 Vertical and horizontal movement patterns of scyphozoan jellyfish in a fjord-like estuary. *Mar. Ecol.-Prog. Ser.* **455**, 1-+. (doi:10.3354/meps09783).

[93] Purcell, J.E. 2012 Jellyfish and Ctenophore Blooms Coincide with Human Proliferations and Environmental Perturbations. *Annu. Rev. Mar. Sci.* **4**, 209-+. (doi:10.1146/annurev-marine-120709-142751).

[94] Pestoric, B., Krpo-Cetkovic, J., Gangai, B. & Lucic, D. 2012 Pelagic cnidarians in the Boka Kotorska Bay, Montenegro (South Adriatic). *Acta Adriat.* **53**, 291-302.

[95] Toyokawa, M., Shibata, M., Cheng, J.H., Li, H.Y., Ling, J.Z., Lin, N., Liu, Z.L., Zhang, Y., Shimizu, M. & Akiyama, H. 2012 First record of wild ephyrae of the giant jellyfish Nemopilema nomurai. *Fish. Sci.* **78**, 1213-1218. (doi:10.1007/s12562-012-0550-0).

[96] Van Ginderdeuren, K., Hostens, K., Hoffman, S., Vansteenbrugge, L., Soenen, K., De Blauwe, H., Robbens, J. & Vincx, M. 2012 Distribution of the invasive ctenophore Mnemiopsis leidyi in the Belgian part of the North Sea. *Aquat. Invasions* **7**, 163-169. (doi:10.3391/ai.2012.7.2.002).

[97] Zhang, F., Sun, S., Jin, X.S. & Li, C.L. 2012 Associations of large jellyfish distributions with temperature and salinity in the Yellow Sea and East China Sea. *Hydrobiologia* **690**, 81-96. (doi:10.1007/s10750-012-1057-5).

[98] Albajes-Eizagirre, A., Romero, L., Soria-Frisch, A. & Vanhellemont, Q. 2011 Jellyfish prediction of occurrence from remote sensing data and a non-linear pattern recognition approach. *Remote Sensing for Agriculture, Ecosystems, and Hydrology Xiii* **8174**. (doi:10.1117/12.898162).

[99] Bastian, T., Stokes, D., Kelleher, J.E., Hays, G.C., Davenport, J. & Doyle, T.K. 2011 Fisheries bycatch data provide insights into the distribution of the mauve stinger (Pelagia noctiluca) around Ireland. *Ices Journal of Marine Science* **68**, 436-443. (doi:10.1093/icesjms/fsq178).

[100] Bastian, T., Haberlin, D., Purcell, J.E., Hays, G.C., Davenport, J., McAllen, R. & Doyle, T.K. 2011 Large-scale sampling reveals the spatio-temporal distributions of the jellyfish Aurelia aurita and Cyanea capillata in the Irish Sea. *Mar. Biol.* **158**, 2639-2652. (doi:10.1007/s00227-011-1762-z).

[101] Condon, R.H., Steinberg, D.K., del Giorgio, P.A., Bouvier, T.C., Bronk, D.A., Graham, W.M. & Ducklow, H.W. 2011 Jellyfish blooms result in a major microbial respiratory sink of carbon in marine systems. *Proceedings of the National Academy of Sciences of the United States of America* **108**, 10225-10230. (doi:10.1073/pnas.1015782108).

[102] Hosia, A., Titelman, J., Hansson, L.J. & Haraldsson, M. 2011 Interactions between native and alien ctenophores: Beroe gracilis and Mnemiopsis leidyi in Gullmarsfjorden. *Mar. Ecol.-Prog. Ser.* **422**, 129-138. (doi:10.3354/meps08926).

[103] Ikeda, H., Ohtsu, K. & Uye, S.-I. 2011 Structural changes of gonads during artificially induced gametogenesis and spawning in the giant jellyfish Nemopilema nomurai (Scyphozoa: Rhizostomeae). *J. Mar. Biol. Assoc. U.K.* **91**, 215-227. (doi:10.1017/s0025315410002244).

[104] Lee, G., Park, S.Y., Hwang, J., Lee, Y.-H., Hwang, S.Y., Lee, S. & Lee, T.-K. 2011 Development of DNA chip for jellyfish verification from South Korea. *Biochip Journal* **5**, 375-382. (doi:10.1007/s13206-011-5412-9).

[105] Lilley, M.K.S., Beggs, S.E., Doyle, T.K., Hobson, V.J., Stromberg, K.H.P. & Hays, G.C. 2011 Global patterns of epipelagic gelatinous zooplankton biomass. *Mar. Biol.* **158**, 2429-2436. (doi:10.1007/s00227-011-1744-1).

[106] Robledano, F., Esteve, M.A., Martinez-Fernandez, J. & Farinos, P. 2011 Determinants of wintering waterbird changes in a Mediterranean coastal lagoon affected by eutrophication. *Ecological Indicators* **11**, 395-406. (doi:10.1016/j.ecolind.2010.06.010).

[107] Salihoglu, B., Fach, B.A. & Oguz, T. 2011 Control mechanisms on the ctenophore Mnemiopsis population dynamics: A modeling study. *Journal of Marine Systems* **87**, 55-65. (doi:10.1016/j.jmarsys.2011.03.001).

[108] Stoner, E.W., Layman, C.A., Yeager, L.A. & Hassett, H.M. 2011 Effects of anthropogenic disturbance on the abundance and size of epibenthic jellyfish Cassiopea spp. *Marine Pollution Bulletin* **62**, 1109-1114. (doi:10.1016/j.marpolbul.2011.03.023).

[109] Verity, P.G., Purcell, J.E. & Frischer, M.E. 2011 Seasonal patterns in size and abundance of Phyllorhiza punctata: an invasive scyphomedusa in coastal Georgia (USA). *Mar. Biol.* **158**, 2219-2226. (doi:10.1007/s00227-011-1727-2).

[110] Dong, Z., Liu, D. & Keesing, J.K. 2010 Jellyfish blooms in China: Dominant species, causes and consequences. *Marine Pollution Bulletin* **60**, 954-963. (doi:10.1016/j.marpolbul.2010.04.022).

[111] Dupont, N. & Aksnes, D.L. 2010 Simulation of optically conditioned retention and mass occurrences of Periphylla periphylla. *J. Plankton Res.* **32**, 773-783. (doi:10.1093/plankt/fbq015).

[112] Ferguson, H.W., Delannoy, C.M.J., Hay, S., Nicolson, J., Sutherland, D. & Crumlish, M. 2010 Jellyfish as vectors of bacterial disease for farmed salmon (Salmo salar). *Journal of Veterinary Diagnostic Investigation* **22**, 376-382.

[113] Fuentes, V.L., Angel, D.L., Bayha, K.M., Atienza, D., Edelist, D., Bordehore, C., Gili, J.-M. & Purcell, J.E. 2010 Blooms of the invasive ctenophore, Mnemiopsis leidyi, span the Mediterranean Sea in 2009. *Hydrobiologia* **645**, 23-37. (doi:10.1007/s10750-010-0205-z).

[114] Licandro, P., Conway, D.V.P., Yahia, M.N.D., Fernandez de Puelles, M.L., Gasparini, S., Hecq, J.H., Tranter, P. & Kirby, R.R. 2010 A blooming jellyfish in the northeast Atlantic and Mediterranean. *Biology Letters* **6**, 688-691. (doi:10.1098/rsbl.2010.0150).

[115] McNamara, M.E., Lonsdale, D.J. & Cerrato, R.M. 2010 Shifting abundance of the ctenophore Mnemiopsis leidyi and the implications for larval bivalve mortality. *Mar. Biol.* **157**, 401-412. (doi:10.1007/s00227-009-1327-6).

[116] Panasiuk-Chodnicka, A.A. & Zmijewska, M.I. 2010 Cnidaria from the Croker passage (Antarctic Peninsula) with a special focus on Siphonophorae. *Polar Biology* **33**, 1131-1143. (doi:10.1007/s00300-010-0802-3).

[117] Pillay, D., Branch, G.M. & Steyn, A. 2010 Unexpected effects of starfish grazing on sandflat communities following an outbreak. *Mar. Ecol.-Prog. Ser.* **398**, 173-182. (doi:10.3354/meps08286).

[118] Prieto, L., Astorga, D., Navarro, G. & Ruiz, J. 2010 Environmental Control of Phase Transition and Polyp Survival of a Massive-Outbreaker Jellyfish. *PLoS One* **5**. (doi:10.1371/journal.pone.0013793).

[119] Roohi, A., Kideys, A.E., Sajjadi, A., Hashemian, A., Pourgholam, R., Fazli, H., Khanari, A.G. & Eker-Develi, E. 2010 Changes in biodiversity of phytoplankton, zooplankton, fishes and macrobenthos in the Southern Caspian Sea after the invasion of the ctenophore Mnemiopsis Leidyi. *Biological Invasions* **12**, 2343-2361. (doi:10.1007/s10530-009-9648-4).

[120] Touzri, C., Yahia, O.K.-D., Hamdi, H., Goy, J. & Yahia, M.N.D. 2010 Spatio-temporal distribution of Medusae (Cnidaria) in the Bay of Bizerte (South Western Mediterranean Sea). *Cahiers De Biologie Marine* **51**, 167-176.

[121] Winans, A.K. & Purcell, J.E. 2010 Effects of pH on asexual reproduction and statolith formation of the scyphozoan, Aurelia labiata. *Hydrobiologia* **645**, 39-52. (doi:10.1007/s10750-010-0224-9).

[122] Zavolokin, A.V. 2010 Distribution and abundance dynamics of jellyfish in the Sea of Okhotsk. *Russian Journal of Marine Biology* **36**, 157-166. (doi:10.1134/s1063074010030016).

[123] Dawson, M.N. & Hamner, W.M. 2009 A character-based analysis of the evolution of jellyfish blooms: adaptation and exaptation. *Hydrobiologia* **616**, 193-215. (doi:10.1007/s10750-008-9591-x).

[124] Gibbons, M.J. & Richardson, A.J. 2009 Patterns of jellyfish abundance in the North Atlantic. *Hydrobiologia* **616**, 51-65. (doi:10.1007/s10750-008-9593-8).

[125] Hamner, W.M. & Dawson, M.N. 2009 A review and synthesis on the systematics and evolution of jellyfish blooms: advantageous aggregations and adaptive assemblages. *Hydrobiologia* **616**, 161-191. (doi:10.1007/s10750-008-9620-9).

[126] Hoover, R.A. & Purcell, J.E. 2009 Substrate preferences of scyphozoan Aurelia labiata polyps among common dock-building materials. *Hydrobiologia* **616**, 259-267. (doi:10.1007/s10750-008-9595-6).

[127] Lilley, M.K.S., Houghton, J.D.R. & Hays, G.C. 2009 Distribution, extent of inter-annual variability and diet of the bloom-forming jellyfish Rhizostoma in European waters. *J. Mar. Biol. Assoc. U.K.* **89**, 39-48. (doi:10.1017/s0025315408002439).

[128] Liu, W.-C., Lo, W.-T., Purcell, J.E. & Chang, H.-H. 2009 Effects of temperature and light intensity on asexual reproduction of the scyphozoan, Aurelia aurita (L.) in Taiwan. *Hydrobiologia* **616**, 247-258. (doi:10.1007/s10750-008-9597-4).

[129] Pauly, D., Graham, W., Libralato, S., Morissette, L. & Palomares, M.L.D. 2009 Jellyfish in ecosystems, online databases, and ecosystem models. *Hydrobiologia* **616**, 67-85. (doi:10.1007/s10750-008-9583-x).

[130] Richardson, A.J., Bakun, A., Hays, G.C. & Gibbons, M.J. 2009 The jellyfish joyride: causes, consequences and management responses to a more gelatinous future. *Trends in Ecology & Evolution* **24**, 312-322. (doi:10.1016/j.tree.2009.01.010).

[131] Skikne, S.A., Sherlock, R.E. & Robison, B.H. 2009 Uptake of dissolved organic matter by ephyrae of two species of scyphomedusae. *J. Plankton Res.* **31**, 1563-1570. (doi:10.1093/plankt/fbp088).

[132] Boero, F., Bouillon, J., Gravili, C., Miglietta, M.P., Parsons, T. & Piraino, S. 2008 Gelatinous plankton: irregularities rule the world (sometimes). *Mar. Ecol.-Prog. Ser.* **356**, 299-310. (doi:10.3354/meps07368).

[133] Daryanabard, R. & Dawson, M.N. 2008 Jellyfish blooms: Crambionella orsini (Scyphozoa : Rhizostomeae) in the Gulf of Oman, Iran, 2002-2003. *J. Mar. Biol. Assoc. U.K.* **88**, 477-483.

[134] Hong, J., He-Qin, C., Hai-Gen, X., Arrequin-Sanchez, F., Zetina-Rejon, M.J., Luna, P.D.M. & Le Quesne, W.J.F. 2008 Trophic controls of jellyfish blooms and links with fisheries in the East China Sea. *Ecological Modelling* **212**, 492-503. (doi:10.1016/i.ecolmodel.2007.10.048).

[135] Lampitt, R.S., Achterberg, E.P., Anderson, T.R., Hughes, J.A., Iglesias-Rodriguez, M.D., Kelly-Gerreyn, B.A., Lucas, M., Popova, E.E., Sanders, R., Shepherd, J.G., et al. 2008 Ocean fertilization: a potential means of geoengineering? *Philosophical Transactions of the Royal Society a-Mathematical Physical and Engineering Sciences* **366**, 3919-3945. (doi:10.1098/rsta.2008.0139).

[136] Mariottini, G.L., Giacco, E. & Pane, L. 2008 The mauve stinger Pelagia noctiluca (Forsskal, 1775). Distribution, ecology, toxicity and epidemiology of stings. A review. *Marine Drugs* **6**, 496-513. (doi:10.3390/md20080025).

[137] Roohi, A., Yasin, Z., Kideys, A.E., Hwai, A.T.S., Khanari, A.G. & Eker-Develi, E. 2008 Impact of a new invasive ctenophore (Mnemiopsis leidyi) on the zooplankton community of the Southern Caspian sea. *Mar. Ecol.-Evol. Persp.* **29**, 421-434. (doi:10.1111/j.1439-0485.2008.00254.x).

[138] Attrill, M.J., Wright, J. & Edwards, M. 2007 Climate-related increases in jellyfish frequency suggest a more gelatinous future for the North Sea. *Limnology and Oceanography* **52**, 480-485.

[139] Moller, L.F. & Riisgard, H.U. 2007 Impact of jellyfish and mussels on algal blooms caused by seasonal oxygen depletion and nutrient release from the sediment in a Danish fjord. *J. Exp. Mar. Biol. Ecol.* **351**, 92-105. (doi:10.1016/j.jembe.2007.06.026).

[140] Pitt, K.A., Kingsford, M.J., Rissik, D. & Koop, K. 2007 Jellyfish modify the response of planktonic assemblages to nutrient pulses. *Mar. Ecol.-Prog. Ser.* **351**, 1-13. (doi:10.3354/meps07298).

[141] Purcell, J.E., Uye, S. & Lo, W.-T. 2007 Anthropogenic causes of jellyfish blooms and their direct consequences for humans: a review. *Mar. Ecol.-Prog. Ser.* **350**, 153-174.

[142] Purcell, J.E. 2007 Environmental effects on asexual reproduction rates of the scyphozoan Aurelia labiata. *Mar. Ecol.-Prog. Ser.* **348**, 183-196. (doi:10.3354/meps07056).

[143] Link, J.S. & Ford, M.D. 2006 Widespread and persistent increase of Ctenophora in the continental shelf ecosystem off NE USA. *Mar. Ecol.-Prog. Ser.* **320**, 153-159.

[144] Lynam, C.P., Gibbons, M.J., Bjørn, E.A., Sparks, C.A.J., Heywood, B.G. & Brierley, A.S. 2006 Jellyfish overtake fish in a heavily fished ecosystem. *Current Biology* **16**, R492-R493.

[145] Fernandez, J.M., Selma, M.A.E., Aymerich, F.R., Saez, M.T.P. & Fructuoso, M.F.C. 2005 Aquatic birds as bioindicators of trophic changes and ecosystem deterioration in the Mar Menor lagoon (SE Spain). *Hydrobiologia* **550**, 221-235.

[146] Xian, W.W., Kang, B. & Liu, R.Y. 2005 Jellyfish blooms in the Yangtze Estuary. *Science* **307**, 41-41.

[147] Purcell, J.E. 2005 Climate effects on formation of jellyfish and ctenophore blooms: a review. *J. Mar. Biol. Assoc. U.K.* **85**, 461-476.

[148] Lynam, C.P., Hay, S.J. & Brierley, A.S. 2004 Interannual variability in abundance of North Sea jellyfish and links to the North Atlantic Oscillation. *Limnology and Oceanography* **49**, 637-643.

[149] Mills, C.E. 2001 Jellyfish blooms: are populations increasing globally in response to changing ocean conditions? *Hydrobiologia* **451**, 55-68.

[150] Asknes, D.L. 2007 Evidence for visual constraints in large marine fish stocks. *Limnology and Oceanography* **52**, 198-203.

[151] Asknes, D.L., Dupont, N., Staby, A., Fiksen, O., Kaartvedt, S. & Aure, J. 2009 Coastal water darkening and implications for mesopelagic regime shifts in Norwegian fjords. *Mar. Ecol.-Prog. Ser.* **387**, 39-49. (doi:10.3354/meps08120).

[152] Arai, M.N. 2001 Pelagic coelenterates and eutrophication: a review. *Hydrobiologia* **451**, 69-87.

[153] Arai, M.N. 2005 Predation on pelagic coelenterates: a review. *J. Mar. Biol. Assoc. U.K.* **85**, 523-536.

[154] Atkinson, A., Siegel, V., Pakhomov, E. & Rothery, P. 2004 Long-term decline in krill stock and increase in salps within the Southern Ocean. *Nature* **432**, 100-103. (doi:10.1038/nature02950).

[155] Bakun, A. & Weekes, S.J. 2004 Greenhouse gas buildup, sardines, submarine eruptions and the possibility of abrupt degradation of intense marine upwelling ecosystems. *Ecology Letters* **7**, 1015-1023.

[156] Bakun, A. & Weeks, S.J. 2006 Adverse feedback sequences in exploited marine systems: are deliberate interruptive actions warranted? *Fish and Fisheries* **7**, 316-333.

[157] Banse, K. 1990 MERMAIDS - THEIR BIOLOGY, CULTURE, AND DEMISE. *Limnology and Oceanography* **35**, 148-153.

[158] Barausse, A., Michieli, A., Riginella, E., Palmeri, L. & Mazzoldi, C. 2011 Long-term changes in community composition and life-history traits in a highly exploited basin (northern Adriatic Sea): the role of environment and anthropogenic pressures. *J. Fish Biol.* **79**, 1453-1486. (doi:10.1111/j.1095-8649.2011.03139.x).

[159] Bilio, M. & Niermann, U. 2004 Is the comb jelly really to blame for it all? *Mnemiopsis leidyi* and the ecological concerns about the Caspian Sea. *Mar. Ecol.-Prog. Ser.* **269**, 173-183.

[160] Billett, D.S.M., Bett, B.J., Jacobs, C.L., Rouse, I.P. & Wigham, B.D. 2006 Mass deposition of jellyfish in the deep Arabian Sea. *Limnology and Oceanography* **51**, 2077-2083.

[161] Boero, F. 2013 Review of jellyfish blooms in the Mediterranean and Black Sea. (p. 53. Rome, Food and Agriculture Organization of the United Nations.

[162] Bolton, T.F. & Graham, W.M. 2006 Jellyfish on the rocks: bioinvasion threat of the international trade in aquarium live rock. *Biological Invasions* **8**, 651-653. (doi:10.1007/s10530-005-2017-z).

[163] Brierley, A.S., Axelsen, B.E., Buecher, E., Sparks, C.A.J., Boyer, H. & Gibbons, M.J. 2001 Acoustic observations of jellyfish in the Namibian Benguela. *Mar. Ecol.-Prog. Ser.* **210**, 55-66.

[164] Brodeur, R.D., Mills, C.E., Overland, J.E., Walters, G.E. & Schumacher, J.D. 1999 Substantial increase in gelatinous zooplankton in the Bering Sea, with possible links to climate change. *Fisheries Oceanography* **8**, 296-306.

[165] Brodeur, R., Sugisaki, H. & Hunt, G.J. 2002 Increases in jellyfish biomass in the Bering Sea: implications for the ecosystem. *Mar. Ecol.-Prog. Ser.* **233**, 89-103.

[166] Brodeur, R.D., Decker, M.B., Ciannelli, L., Purcell, J.E., Bond, N.A., Stabeno, P.J., Acuna, E. & Hunt, G.L. 2008 Rise and fall of jellyfish in the eastern Bering Sea in relation to climate regime shifts. *Progress in Oceanography* **77**, 103-111.

[167] Buckland, S., Anderson, D., Burnham, K., Laake, J., Borchers, D. & Thomas, L. 2001 *Introduction to distance sampling: estimating abundance of biological populations*. New York, Oxford University Press.

[168] Byers, J.E. 2002 Impact of non-indigenous species on natives enhanced by anthropogenic alteration of selection regimes. *Oikos* **97**, 449-458. (doi:10.1034/j.1600-0706.2002.970316.x).

[169] Caddy, J. 1993 Toward a comparative evaluation of human impacts on fishery ecosystems of enclosed and semi-enclosed seas. *Reviews in Fisheries Science* **1**, 57-95.

[170] Condon, R.H. & Steinberg, D.K. 2008 Development, biological regulation, and fate of ctenophore blooms in the York River estuary, Chesapeake Bay. *Mar. Ecol.-Prog. Ser.* **369**, 153-168. (doi:10.3354/meps07595).

[171] Costello, J.H., Sullivan, B.K. & Gifford, D.J. 2006 A physical-biological interaction underlying variable phenological responses to climate change by coastal zooplankton. *J. Plankton Res.* **28**, 1099-1105. (doi:10.1093/plankt/fbl042).

[172] Costello, J.H., Sullivan, B.K., Gifford, D.J., Van Keuren, D. & Sullivan, L.J. 2006 Seasonal refugia, shoreward thermal amplification, and metapopulation dynamics of the ctenophore Mnemiopsis leidyi in Narragansett Bay, Rhode Island. *Limnology and Oceanography* **51**, 1819-1831.

[173] Daly Yahia, M.N., Batistic, M., Lucic, D., de Puelles, M.L.F., Licandro, P., Malej, A., Molinero, J.C., Siokou-Frangou, I., Zervoudaki, S., Prieto L., Goy, J., Daly Yahia-Kefi, O. 2010 Are the outbreaks of *Pelagia noctiluca* (Forsskal, 1775) more frequent in the Mediterranean basin? In *Proceedings of the "Joint ICES/CIESM Workshop to Compare Zooplankton Ecology and Methodologies between the Mediterranean and the North Atlantic (WKZEM)"* (ed. A. Gislason, Gorsky, G.), pp. 8-14. Denmark, ICES.

[174] Daskalov, G.M. 2002 Overfishing drives atrophic cascade in the Black Sea. *Mar. Ecol.-Prog. Ser.* **225**, 53-63. (doi:10.3354/meps225053).

[175] Daskalov, G.M., Grishin, A.N., Rodionov, S. & Mihneva, V. 2007 Trophic cascades triggered by overfishing reveal possible mechanisms of ecosystem regime shifts. *Proceedings of the National Academy of Sciences of the United States of America* **104**, 10518-10523. (doi:10.1073/pnas.0701100104).

[176] Daskalov, G.M. & Mamedov, E.V. 2007 Integrated fisheries assessment and possible causes for the collapse of anchovy kilka in the Caspian Sea. *Ices Journal of Marine Science* **64**, 503-511. (doi:10.1093/icesjms/fsl047).

[177] Dawson, M.N., Sen Gupta, A. & England, M.H. 2005 Coupled biophysical global ocean model and molecular genetic analyses identify multiple introductions of cryptogenic species. *Proceedings of the National Academy of Sciences of the United States of America* **102**, 11968-11973. (doi:10.1073/pnas.0503811102).

[178] Decker, M.B., Breitburg, D.L. & Purcell, J.E. 2004 Effects of low dissolved oxygen on zooplankton predation by the ctenophore Mnemiopsis leidyi. *Mar. Ecol.-Prog. Ser.* **280**, 163-172. (doi:10.3354/meps280163).

[179] Decker, M.B., Brown, C.W., Hood, R.R., Purcell, J.E., Gross, T.F., Matanoski, J.C., Bannon, R.O. & Setzler-Hamilton, E.M. 2007 Predicting the distribution of the scyphomedusa Chrysaora quinquecirrha in Chesapeake Bay. *Mar. Ecol.-Prog. Ser.* **329**, 99-113. (doi:10.3354/meps329099).

[180] Diaz, R.J. & Rosenberg, R. 2008 Spreading dead zones and consequences for marine ecosystems. *Science* **321**, 926-929. (doi:10.1126/science.1156401).

[181] Eiane, K., Aksnes, D.L., Bagoien, E. & Kaartvedt, S. 1999 Fish or jellies - a question of visibility? *Limnology and Oceanography* **44**, 1352-1357.

[182] Goy, J., Morand, P. & Etienne, M. 1989 Long-term fluctuations of "Pelagia noctiluca" (Cnidaria, Scyphomedusa) in the western Mediterranean Sea. Prediction by climatic variables. *Deep-Sea Research* **36**, 269-279.

[183] Graham, W.M. 2001 Numerical increases and distributional shifts of *Chrysaora quinquecirrha* (Desor) and *Aurelia aurita* (Linne) (Cnidaria: Scyphozoa) in the northern Gulf of Mexico. *Hydrobiologia* **451**, 97-111.

[184] Graham, W.M., Martin, D.L., Felder, D.L., Asper, V.L. & Perry, H.M. 2003 Ecological and economic implications of a tropical jellyfish invader in the Gulf of Mexico. *Biological Invasions* **5**, 53-69.

[185] Graham, W.M., Bayha, K.M. 2007 Biological invasions by marine jellyfish. In *Biological Invasions: Ecological Studies* (ed. W. Nentwig), pp. 239-255. Berlin, Heidelberg, Springer-Verlag Press.

[186] Gucu, A.C. 2002 Can overfishing be responsible for the successful establishment of *Mnemiopsis leidyi* in the Black Sea. *Estuarine, Coastal and Shelf Science* **54**, 439-451.

[187] Han, C.-H. & Uye, S.-I. 2010 Combined effects of food supply and temperature on asexual reproduction and somatic growth of polyps of the common jellyfish *Aurelia aurita* s.l. *Plankton and Benthos Research* **5**, 98-105.

[188] Hansson, H.G. 2006 Ctenophores of the Baltic and adjacent Seas-the invader *Mnemiopsis* is here! *Aquat. Invasions* **1**, 295-298.

[189] Hay, S. 2006 Marine ecology: Gelatinous bells may ring change in marine ecosystems. *Current Biology* **16**, R679-R382.

[190] Holland, B.S., Dawson, M.N., Crow, G.L. & Hofmann, D.K. 2004 Global phylogeography of Cassiopea (Scyphozoa : Rhizostomeae): molecular evidence for cryptic species and multiple invasions of the Hawaiian Islands. *Mar. Biol.* **145**, 1119-1128. (doi:10.1007/s00227-004-1409-4).

[191] Holst, S. & Jarms, G. 2007 Substrate choice and settlement preferences of planula larvae of five Scyphozoa (Cnidaria) from German Bight, North Sea. *Mar. Biol.* **151**, 863-871.

[192] Holst, S. 2012 Effects of climate warming on strobilation and ephyra production of North Sea scyphozoan jellyfish. *Hydrobiologia* **690**, 127-140. (doi:10.1007/s10750-012-1043-y).

[193] Hughes, T.P., Bellwood, D.R., Folke, C., Steneck, R.S. & Wilson, J. 2005 New paradigms for supporting the resilience of marine ecosystems. *Trends in Ecology & Evolution* **20**, 380-386. (doi:10.1016/j.tree.2005.03.022).

[194] Ishii, H. & Bamstedt, U. 1998 Food regulation of growth and maturation in a natural population of Aurelia aurita (L.). *J. Plankton Res.* **20**, 805-816. (doi:10.1093/plankt/20.5.805).

[195] Ishii, H. 2008 Effects of low dissolved oxygen on planula settlement, polyp growth and asexual reproduction of *Aurelia aurita*. *Plankton and Benthos Research* **3 (Supple)**, 107-113.

[196] Jackson, J.B.C., Kirby, M.X., Berger, W.H., Bjorndal, K.A., Botsford, L.W., Bourque, B.J., Bradbury, R.H., Cooke, R., Erlandson, J., Estes, J.A., et al. 2001 Historical overfishing and the recent collapse of coastal ecosystems. *Science* **293**, 629-638. (doi:10.1126/science.1059199).

[197] Janssen, H., Augustin, C.B., Hinrichsen, H.H. & Kube, S. 2013 Impact of secondary hard substrate on the distribution and abundance of Aurelia aurita in the western Baltic Sea. *Marine Pollution Bulletin* **75**, 224-234. (doi:10.1016/j.marpolbul.2013.07.027).

[198] Kawahara, M., Uye, S., Ohtsu, K. & Iizumi, H. 2006 Unusual population explosion of the giant jellyfish *Nemopilema nomurai* (Scyphozoa: Rhizostomeae) in East Asian waters. *Mar. Ecol.-Prog. Ser.* **307**, 161-173.

[199] Kideys, A.E. 1994 Recent dramatic changes in the Black Sea ecosystem: the reason for the sharp decline in Turkish anchovy fisheries. *Journal of Marine Systems* **5**, 171-181. (doi:10.1016/0924-7963(94)90030-2).

[200] Kideys, A.E. & Gucu, A.C. 1995 Rhopilema nomadica: A Lessepsian Scyphomedusan new to the Mediterranean coast of Turkey. *Israel Journal of Zoology* **41**, 615-617.

[201] Kideys, A.E. 2002 Fall and rise of the Black Sea ecosystem. *Science* **297**, 1482-1484. (doi:10.1126/science.1073002).

[202] Kirby, R.R., Beaugrand, G. & Lindley, J.A. 2009 Synergistic Effects of Climate and Fishing in a Marine Ecosystem. *Ecosystems* **12**, 548-561. (doi:10.1007/s10021-009-9241-9).

[203] Kogovsek, T., Bogunovic, B. & Malej, A. 2010 Recurrence of bloom-forming scyphomedusae: wavelet analysis of a 200-year time series. *Hydrobiologia* **645**, 81-96. (doi:10.1007/s10750-010-0217-8).

[204] Liu, J.G. & Diamond, J. 2005 China's environment in a globalizing world. *Nature* **435**, 1179-1186. (doi:10.1038/4351179a).

[205] Lo, W.T., Purcell, J.E., Hung, J.J., Su, H.M. & Hsu, P.K. 2008 Enhancement of jellyfish (Aurelia aurita) populations by extensive aquaculture rafts in a coastal lagoon in Taiwan. *Ices Journal of Marine Science* **65**, 453-461. (doi:10.1093/icesjms/fsm185).

[206] Lo, W.T. & Chen, I.L. 2008 Population succession and feeding of scyphomedusae, Aurelia aurita, in a eutrophic tropical lagoon in Taiwan. *Estuarine Coastal and Shelf Science* **76**, 227-238. (doi:10.1016/j.ecss.2007.07.015).

[207] Lucic, D., Benovic, A., Morovic, M., Batistic, M. & Onofri, I. 2009 Diel vertical migration of medusae in the open Southern Adriatic Sea over a short time period (July 2003). *Mar. Ecol.-Evol. Persp.* **30**, 16-32. (doi:10.1111/j.1439-0485.2008.00264.x).

[208] Lynam, C.P., Heath, M.R., Hay, S.J. & Brierley, A.S. 2005 Evidence for impacts by jellyfish on North Sea herring recruitment. *Mar. Ecol.-Prog. Ser.* **298**, 157-167. (doi:10.3354/meps298157).

[209] Lynam, C.P., Attrill, M.J. & Skogen, M.D. 2010 Climatic and oceanic influences on the abundance of gelatinous zooplankton in the North Sea. *J. Mar. Biol. Assoc. U.K.* **90**, 1153-1159. (doi:10.1017/s0025315409990488).

[210] Lynam, C.P., Lilley, M.K.S., Bastian, T., Doyle, T.K., Beggs, S.E. & Hays, G.C. 2011 Have jellyfish in the Irish Sea benefited from climate change and overfishing? *Global Change Biology* **17**, 767-782. (doi:10.1111/j.1365-2486.2010.02352.x).

[211] Matveev, I.V., Adonin, L.S., Shaposhnikova, T.G. & Podgornaya, O.I. 2012 Aurelia aurita-Cnidarian With a Prominent Medusiod Stage. *Journal of Experimental Zoology Part B-Molecular and Developmental Evolution* **318B**, 1-12. (doi:10.1002/jez.b.21440).

[212] Mianzan, H., Quinones, J., Palma, S., Schiariti, A., EM Acha, Robinson, K. & Graham, W. 2014 *Chrysaora plocamia*: A Poorly Understood Jellyfish from South American Waters. In *Jellyfish Blooms* (eds. P. KA & C. Lucas), pp. 219-236. Dordrecht Heidelberg New York London, Springer.

[213] Mills, C.E. 1995 Medusae, siphonophores, and ctenophores as planktivorous predators in changing global ecosystems. *ICES Journal of Marine Science* **52**, 575-581.

[214] Mills, C.E. & Sommer, F. 1995 Invertebrate introductions in marine habitats: two species of hydromedusae (Cnidaria) native to the Black Sea, "Maeotias inexspectata" and "Blackfordia virginica", invade San Francisco Bay. *Mar. Biol.* **122**, 279-288.

[215] Miyake, H., Terazaki, M. & Kakinuma, Y. 2002 On the polyps of the common jellyfish Aurelia aurita in Kagoshima Bay. *Journal of Oceanography* **58**, 451-459. (doi:10.1023/a:1021628314041).

[216] Molinero, J.C., Ibanez, F., Nival, P., Buecher, E. & Souissi, S. 2005 North Atlantic climate and northwestern Mediterranean plankton variability. *Limnology and Oceanography* **50**, 1213-1220.

[217] Molinero, J.C., Casini, M. & Buecher, E. 2008 The influence of the Atlantic and regional climate variability on the long-term changes in gelatinous carnivore populations in the northwestern Mediterranean. *Limnology and Oceanography* **53**, 1456-1467. (doi:10.4319/lo.2008.53.4.1456).

[218] Molinero, J.C., Ibanez, F., Souissi, S., Buecher, E., Dallot, S. & Nival, P. 2008 Climate control on the long-term anomalous changes of zooplankton communities in the Northwestern Mediterranean. *Global Change Biology* **14**, 11-26. (doi:10.1111/j.1365-2486.2007.01469.x).

[219] Nagai, T. 2003 Recovery of fish stocks in the Seto Inland Sea. *Marine Pollution Bulletin* **47**, 126-131.

[220] Nagvenkar, M. 2012 Goa's fishy problem: falling haul blamed on preying jellyfish. (TwoCircles.net.

[221] Niermann, U. 2004 *Mnemiopsis leidyi*: distribution and effect on the Black Sea ecosystem during the first year of invasion in comparison with other gelatinous blooms. In *Aquatic invasions in the Black, Caspian and Mediterranean Sea* (eds. H.J. Dumont, T.A. Shiganova & U. Niermann), pp. 3-31. Dordrecht, Kluwer Academic.

[222] Nomura, H., Ishimaru, T. 1998 Monitoring the occurrence of medusae and ctenophores in Tokyo Bay, central Japan in recent 15 years. *The Oceanographic Society of Japan* **7**, 99-104.

[223] Occhipinti-Ambrogi, A. & Ambrogi, R. 2009 Global change and loss of biodiversity in the world's oceans. *Studi Trentini di Scienze Naturali* **81**, 91-97.

[224] Oguz, T. 2005 Black Sea ecosystem response to climatic teleconnections. *Oceanography*, 122-133.

[225] Oguz, T. 2005 Long-term impacts of anthropogenic forcing on the Black Sea ecosystem. *Oceanography* **18**, 112-121.

[226] Oguz, T., Fach, B. & Salihoglu, B. 2008 Invasion dynamics of the alien ctenophore Mnemiopsis leidyi and its impact on anchovy collapse in the Black Sea. *J. Plankton Res.* **30**, 1385-1397. (doi:10.1093/plankt/fbn094).

[227] Oiso, N., Fukai, K., Ishii, M., Ohgushi, T. & Kubota, S. 2005 Jellyfish dermatitis caused by Porpita pacifica, a sign of global warming? *Contact Dermatitis* **52**, 232-233. (doi:10.1111/j.0105-1873.2005.0566f.x).

[228] Parsons, T.R. & Lalli, C.M. 2002 Jellyfish population explosions: Revisiting a hypothesis of possible causes. *La mer* **40**, 111-121.

[229] Pauly, D., Christensen, V., Dalsgaard, J., Froese, R. & Torres, F. 1998 Fishing Down Marine Food Webs. *Science* **279**, 860-863.

[230] Pauly, D., Christiensen, V., Guenette, S., Pitcher, T.J., Sumaila, R., Walters, C.J., Waterson, R. & Zeller, D. 2002 Towards sustainability in world fisheries. *Nature* **418**, 689-695.

[231] Pauly, D., Alder, J., Bennett, E., Christensen, V., Tyedmers, P. & Watson, R. 2003 The future for fisheries. *Science* **302**, 1359-1361.

[232] Perez-Ruzafa, A., Gilabert, J., Gutierrez, J.M., Fernandez, A.I., Marcos, C. & Sabah, S. 2002 Evidence of a planktonic food web response to changes in nutrient input dynamics in the Mar Menor coastal lagoon, Spain. *Hydrobiologia* **475/476**, 359-369.

[233] Perez Ruzafa, A., Marcos, C. 2004 El Mar Menor. In *Los recursos naturales de la Region de Murcia. Un analisis interdisciplinar.* (pp. 404-411, Universidad de Murcia-Cajamurcia.

[234] Purcell, J.E., Malej, A. & Benovic, A. 1999 Potential links of jellyfish to eutrophication and fisheries. *Coastal and Estuarine Studies* **55**, 241-263.

[235] Purcell, J.E., Shiganova, T.A., Decker, M.B. & Houde, E.D. 2001 The ctenophore *Mnemiopsis* in native and exotic habitats: U.S. estuaries *versus* the Black Sea basin. *Hydrobiologia* **451**, 145-176.

[236] Purcell, J.E. & Arai, M.N. 2001 Interactions of pelagic cnidarians and ctenophores with fish: a review. *Hydrobiologia* **451**, 27-44.

[237] Purcell, J.E., Breitburg, D.L., Decker, M.B., Graham, W.M., Youngbluth, M.J., Raskoff, K.A. 2001 Pelagic cnidarians and ctenophores in low dissolved oxygen environments: a review. In *Coastal hypoxia: conseqeunces for living resources and ecosystems* (ed. N.N. Rabalais, Turner, R.E.), pp. 77-97. Washington DC, American Geophysical Union.

[238] Purcell, J.E. & Decker, M.B. 2005 Effects of climate on relative predation by scyphomedusae and ctenophores on copepods in Chesapeake Bay during 1987-2000. *Limnology and Oceanography* **50**, 376-387.

[239] Purcell, J.E., Hoover, R.A. & Schwarck, N.T. 2009 Interannual variation of strobilation by the scyphozoan Aurelia labiata in relation to polyp density, temperature, salinity, and light conditions in situ. *Mar. Ecol.-Prog. Ser.* **375**, 139-149. (doi:10.3354/meps07785).

[240] Purcell, J.E., Hopcroft, R.R., Kosobokova, K.N. & Whitledge, T.E. 2010 Distribution, abundance, and predation effects of epipelagic ctenophores and jellyfish in the western Arctic Ocean. *Deep-Sea Research Part Ii-Topical Studies in Oceanography* **57**, 127-135. (doi:10.1016/j.dsr2.2009.08.011).

[241] Qiu, J. 2014 Coastal havoc boosts jellies. *Nature* **514**, 545-545.

[242] Reusch, T.B.H., Bolte, S., Sparwel, M., Moss, A.G. & Javidpour, J. 2010 Microsatellites reveal origin and genetic diversity of Eurasian invasions by one of the world's most notorious marine invader, Mnemiopsis leidyi (Ctenophora). *Molecular Ecology* **19**, 2690-2699. (doi:10.1111/j.1365-294X.2010.04701.x).

[243] Richardson, A.J. 2008 In hot water: zooplankton and climate change. *Ices Journal of Marine Science* **65**, 279-295. (doi:10.1093/icesjms/fsn028).

[244] Riisgard, H.U., Andersen, P. & Hoffmann, E. 2012 From Fish to Jellyfish in the Eutrophicated Limfjorden (Denmark). *Estuaries and Coasts* **35**, 701-713. (doi:10.1007/s12237-012-9480-4).

[245] Robinson, K.L. & Graham, W.M. 2014 Warming of subtropical coastal waters accelerates Mnemiopsis leidyi growth and alters timing of spring ctenophore blooms. *Mar. Ecol.-Prog. Ser.* **502**, 105-115. (doi:10.3354/meps10739).

[246] Roux, J.-P., van der Lingen, C.D., Gibbons, M.J., Moroff, N.E., Shannon, L.J., Smith, A.D.M. & Cury, P.M. 2013 JELLYFICATION OF MARINE ECOSYSTEMS AS A LIKELY CONSEQUENCE OF OVERFISHING SMALL PELAGIC FISHES: LESSONS FROM THE BENGUELA. *Bulletin of Marine Science* **89**, 249-284. (doi:10.5343/bms.2011.1145).

[247] Rutherford, L.D. & Thuesen, E.V. 2005 Metabolic performance and survival of medusae in estuarine hypoxia. *Mar. Ecol.-Prog. Ser.* **294**.

[248] Sagasti, A., Schaffner, L.C. & Duffy, J.E. 2001 Effects of periodic hypoxia on mortality, feeding and predation in an estuarine epifaunal community. *J. Exp. Mar. Biol. Ecol.* **258**, 257-283. (doi:10.1016/s0022-0981(01)00220-9).

[249] Shiganova, T.A. 1997 *Mnemiopsis leidyi* abundance in the Black Sea and its impact on the pelagic community. In *Sensitivity to Change: Black Sea, Baltic Sea and North Sea* (pp. 117-129, NATO ASI Series.

[250] Shiganova, T.A. 1998 Invasion of the Black Sea by the ctenophore *Mnemiopsis leidyi* and recent changes in pelagic community structure. *Fisheries Oceanography* **7**, 305-310.

[251] Shiganova, T.A. & Bulgakova, Y.V. 2000 Effects of gelatinous plankton on Black Sea and Sea of Azov fish and their food resources. *ICES Journal of Marine Science* **57**, 641-648.

[252] Shiganova, T.A., Mirzoyan, Z.A., Studenikina, E.A., Volovik, S.P., Siokou-Frangou, I., Zervoudaki, S., Christou, E.D., Skirta, A.Y. & Dumont, H.J. 2001 Population development of the invader ctenophore Mnemiopsis leidyi, in the Black Sea and in other seas of the Mediterranean basin. *Mar. Biol.* **139**, 431-445.

[253] Shiraki, Y., Yanagi, T. & Guo, X. 2008 Tracer experiments for appearnce of giant jellyfish, *Nemopilema nomurai*, in the southern Japanese coastal area of the Pacific Ocean in summer. In *Rep Res Inst Appl Mech,* (pp. 5-11, Kyushuu University.

[254] Shoji, J., Kudoh, T., Takatsuji, H., Kawaguchi, O. & Kasai, A. 2010 Distribution of moon jellyfish Aurelia aurita in relation to summer hypoxia in Hiroshima Bay, Seto Inland Sea. *Estuarine Coastal and Shelf Science* **86**, 485-490. (doi:10.1016/j.ecss.2009.03.001).

[255] Sommer, U., Stibor, H., Katechakis, A., Sommer, F. & Hansen, T. 2002 Pelagic food web configurations at different levels of nutrient richness and their implications for the ratio fish production: primary production. *Hydrobiologia* **484**, 11-20.

[256] Sornes, T.A., Aksnes, D.L., Bamstedt, U. & Youngbluth, M.J. 2007 Causes for mass occurrences of the jellyfish Periphylla periphylla: a hypothesis that involves optically conditioned retention. *J. Plankton Res.* **29**, 157-167. (doi:10.1093/plankt/fbm003).

[257] Studenikina, E.I., Volovik, S.P., Mirsoyan, I.A. & Luts, G.I. 1991 MNEMIOPSIS-LEIDYI IN THE AZOV SEA. *Okeanologiya* **31**, 981-985.

[258] Sullivan, B.K., van Keuren, D. & Clancy, M. 2001 Timing and size of blooms of the ctenophore *Mnemiopsis leidyi* in relation to temperature in Narragansett Bay, RI. *Hydrobiologia* **451**, 113-120.

[259] Tatsuki, N. 2005 Eutrophication and the increase of jellyfish population in the Seto Inland Sea. *Bulletin of the Plankton Society of Japan* **52**, 27-31.

[260] Thuesen, E.V., Rutherford, L.D., Brommer, P.L., Garrison, K., Gutowska, M.A. & Towanda, T. 2005 Intragel oxygen promotes hypoxia tolerance of scyphomedusae. *Journal of Experimental Biology* **208**, 2475-2482. (doi:10.1242/jeb.01655).

[261] Utne-Palm, A.C., Salvanes, A.G.V., Currie, B., Kaartvedt, S., Nilsson, G.E., Braithwaite, V.A., Stecyk, J.A.W., Hundt, M., van der Bank, M., Flynn, B., et al. 2010 Trophic Structure and Community Stability in an Overfished Ecosystem. *Science* **329**, 333-336. (doi:10.1126/science.1190708).

[262] Uye, S. & Ueta, Y. 2004 Recent increase of jellyfish populations and their nuisance to fisheries in the Inland Sea of Japan. *Bulletin of the Japanese Society of Fisheries Oceanography* **68**, 9-19.

[263] Uye, S. 2008 Blooms of the giant jellyfish *Nemopilema nomurai*: a threat to the fisheries sustainability of the East Asian Marginal Seas. *Plankton and Benthos Research* **3 (Suppl.)**, 125-131.

[264] Uye, S.-i. 2011 Human forcing of the copepod-fish-jellyfish triangular trophic relationship. *Hydrobiologia* **666**, 71-83. (doi:10.1007/s10750-010-0208-9).

[265] Webster, C.N. & Lucas, C.H. 2012 The effects of food and temperature on settlement of Aurelia aurita planula larvae and subsequent somatic growth. *J. Exp. Mar. Biol. Ecol.* **436**, 50-55. (doi:10.1016/j.jembe.2012.08.014).

[266] Weisse, T., Gomoiu, M.T., Scheffel, U. & Brodrecht, F. 2002 Biomass and size composition of the comb jelly Mnemiopsis sp in the north-western Black Sea during Spring 1997 and Summer 1995. *Estuarine Coastal and Shelf Science* **54**, 423-437. (doi:10.1006/ecss.2000.0656).

[267] Widmer, C.L. 2005 Effects of temperature on growth of north-east Pacific moon jellyfish ephyrae, Aurelia labiata (Cnidaria : Scyphozoa). *J. Mar. Biol. Assoc. U.K.* **85**, 569-573. (doi:10.1017/s0025315405011495).

[268] Yasuda, T. 2004 Massive blooms of the giant medusa in Japanese waters from late summer to winter in 2002. *Bulletin of the Plankton Society of Japan* **51**, 34-37.

[269] Yoon, W.D., Yang, J.Y., Shim, M.B. & Kang, H.K. 2008 Physical processes influencing the occurrence of the giant jellyfish Nemopilema nomurai (Scyphozoa : Rhizostomeae) around Jeju Island, Korea. *J. Plankton Res.* **30**, 251-260. (doi:10.1093/plankt/fbm102).

[270] Zaitsev, Y.P. 1992 Recent changes in the trophic structure of the Black Sea. *Fisheries Oceanography* **1**, 180-189.

[271] Zaitsev, Y. & Mamaev, V. 1997 Marine Biological Diversity in the Black Sea: A Study of Change and Decline. (New York.