

## **'A Serious Man Versus Nature Moment:' Aquatic Monsters, Deep Time, and Climate Change**

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### **ABSTRACT**

This article suggests that the megalodons, American alligators, and bull sharks featured in *The Meg* (2018), *Crawl* (2019), and *Deep Blue Sea 3* (2020) expand the temporal scope of the narratives to geological time. In so doing, these films not only expose the incongruity of geological with historical time but also grapple with the representational dilemma of conveying slow-moving disasters that unfold in a non-human temporal order.

**Keywords:** Anthropocene, environmental criticism, horror films, monstrosity, global warming, temporality

## **'Momento Un hombre serio contra la naturaleza:' Monstruos acuáticos, Tiempo Profundo y Cambio Climático**

### **RESUMEN**

Este artículo sugiere que los megalodones, los caimanes americanos y los tiburones toro que aparecen en *The Meg* (2018), *Crawl* (2019) y *Deep Blue Sea 3* (2020) amplían el alcance temporal de las narraciones al tiempo geológico. Al hacerlo, estas películas no solo exponen la incongruencia del tiempo geológico con el histórico, sino que también abordan el dilema de representación de transmitir desastres lentos que se desarrollan en un orden temporal no humano.

**Palabras clave:** antropoceno, crítica ambiental, películas de terror, monstruosidad, calentamiento global, temporalidad

“一個嚴肅的人與自然的時刻”：水生怪物，  
深時間和氣候變化

摘要

本文暗示，电影《巨齿鲨》（2018）、《巨鳄风暴》（2019）和《深海狂鲨3》（2020）中所出现的巨齿鲨、美国短吻鳄以及公牛鲨将叙事的时间范围带到了地质时期。为此，这些电影不仅暴露了地质时期和历史时期的不一致，还设法解决“如何表达在非人类时间顺序下缓慢发展的灾难”这一代表性困境。

关键词：人类世；环境批判主义；恐怖电影；怪物性（monstrosity）；全球变暖；时间性

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“From the depths of the ocean and the  
depths of prehistory comes the predator  
we love to fear.”

Trailer for *Great White Shark* (2014)

In the book *Skin Shows* (1995), Jack (then Judith) Halberstam observes that “fear and monstrosity are historically specific forms” (24). As representations of a culture’s fears and anxieties at particular historical moments, monsters proliferate “at times of crisis,” Jeffrey Cohen adds in his theses on monstrosity (6). We are in such a crisis—the climate crisis. More than 11,000 scientists have declared “clearly and unequivocally that planet Earth is facing a[n] . . . emergency” (Ripple et al. 8). “We are in deep trouble,” climate scientist Raymond Pierrehumbert has opined, stressing that “with regards to the climate crisis, . . . it’s time to panic” (215). More

and more people do, in fact, panic. Researchers from Yale have observed that the number of Americans “alarmed” by global warming tripled from 2014 to 2019, while 2017 was the first year that people “alarmed” or “concerned” by climate change made up a majority of the U.S. population (Goldberg et al.). Global warming has become a phenomenon that is so deeply ingrained in the “contemporary cultural consciousness that it forms an inherent background to twenty-first-century life” (Bracke 1). As a result, cultural artifacts reflect global warming and attendant effects such as ocean acidification and the extermination of wildlife even if they are not openly about the environmental crisis.

The aquatic monsters represented in three recent movies—*The Meg* (2018), *Crawl* (2019), and *Deep Blue Sea 3* (2020)—“give figurative shape to [the] formless threats” (Nixon 10) of the climate crisis and exemplify that contemporary horror has evolved into a vehicle for channeling “a planetary fear” (Dillon). Monstrous animals may express “prey-related phobias” that are hardwired into human genetic memory (Jones 116) and/or provide an access point “not only to the individual’s own repressed but also to the culture’s repressed” (Giblett 301). However, particular animal monsters—and sharks and crocodilians are key among them—open up an altogether different temporal scale. Already in *Jaws* (1975), Chief Brody tells his wife, “People don’t even know how old sharks are. I mean, they live two, three thousand years—they don’t know.” Brody’s statement suggests that the lack of definitive knowledge about how long sharks have been inhabiting this planet and how long individual specimens may live exposes the human inability to truly comprehend the world. When a phenomenon cannot be adequately perceived by, and satisfactorily conceived of in relation to, a human subject, it often causes a particular kind of anxiety, as the phenomenon’s very

existence exposes a shortfall of human knowledge and experience and arguably even erases the human as an adequate point of reference.

Indeed, the megalodons, American alligators, and bull sharks starring in *The Meg*, *Crawl*, and *Deep Blue Sea 3* evoke a pre-human past, as they have been inhabiting Earth for much longer than humans have or even vanished from the planet millions of years ago. Whereas the genus *Homo* emerged about 2.8 million years ago (Villmoare et al.), megalodon first appeared at least 16 million years ago and likely disappeared about 3.5 million years ago (Pimiento et al.), the genus bull sharks belong to (*Carcharhinus*) has been roaming the oceans for at least 40 million years (Musick, Harbin, and Compagno), and even though alligators are among the “younger” crocodylians, they have been inhabiting the planet since the Late Cretaceous (Brochu). As the alligators and sharks featured in *The Meg*, *Crawl*, and *Deep Blue Sea 3* escalate the temporal scope of the three narratives to geological time, they expose the incongruity of geological with historical time. In so doing, these movies grapple with the representational dilemma of conveying slow-moving disasters that unfold in a nonhuman temporal order whose scale is too vast to mentally comprehend or emotionally handle.

### **RISING SEA LEVELS AND CROSS-SPECIES VULNERABILITIES**

*Deep Blue Sea 3* wastes no time to invoke the specter of global warming. As the film begins, the camera traverses the sea and catches sight of three sharks whose dorsal fins break the surface. The camera follows them for a few moments before spotting the sharks' apparent goal in the distance: a small island, which the camera first approaches and then circles. In combination with the foreboding score, the camera's move-

ment around the island highlights the structure's fragility, vulnerability, and isolation, as the island is located dozens of miles off the eastern coast of Africa and about to be attacked by three sharks (Illustration 1). Viewers learn that the island is called Little Happy, an artificial island off the coast of Mozambique. Little Happy is a tiny trace of human civilization in the Indian Ocean that, nevertheless, epitomizes the never-ending attempts to colonize the spots that humans have yet to settle on the planet. Yet this attempt to settle the ocean is bewildering, for, as Steve Mentz has noted, the “ocean surrounds our dry homes as a place of risk, vulnerability, and weakness. We live near the waters, we employ them, and we love them. But they are not our home” (17).



**Illustration 1:** *Deep Blue Sea 3* introduces the shark threat and Little Happy. Screenshots from *Deep Blue Sea 3* © Warner Bros., 2020.

The island typifies some of the paradoxes characteristic of the Anthropocene, this “loose, shorthand term for all the new contexts and demands—cultural, ethical, aesthetic, philosophical and political—of environmental issues that are truly planetary in scale” (Clark, *Ecocriticism* 2). After all, the artificial island, built by local fishermen, evokes capitalism’s exploitation of the planet, which Jason Moore has described as the “ongoing, radically expansive, and relentlessly innovative quest to turn the work/energy of the biosphere into

capital” (54). In the real world, Mozambique is extremely vulnerable to sea level rise and barely prepared to combat the potentially disastrous effects of global warming (Mucava et al.). More than half of the country’s human population lives close to the coast. The local fishermen primarily operate in the coastal areas and head out onto the ocean in search for subsistence (“Fish Forever”). However, the trawlers licensed to fish in deeper waters in the Channel are primarily owned by Chinese and European companies (Tosi), continuing the long tradition of economic powers extracting resources from the African continent. Overfishing and the constantly growing human population put strains on both the fish populations and traditional ways of human life in the region, as the operations of capitalism’s world ecology exploit and marginalize both local fishermen and wildlife. The man-made island of Little Happy thus comes to symbolize Africa’s desperate attempts at finding ways to persist in an economic system that clearly stacks the cards against them. Struggling against the forces of global capitalism and competing over limited resources, the local populations are forced to settle the ocean in order to survive.

However, the construction of the island only solved the African fishermen’s dilemma temporarily. While shooting footage for her research station’s social media channels, Dr. Emma Collins, a marine biologist studying great white sharks in the Channel, explains that the inhabitants of Little Happy “were some of the first victims of rising sea levels. Eight hundred people used to live on this tiny, man-made island. Now, there are only two left.” In this way, *Deep Blue Sea 3* acknowledges that global warming and its potentially catastrophic consequences are not fantastic constructs that characterize some apocalyptic future; global warming affects actual human lives in noticeable and sometimes dramatic ways in the

present moment. Although the entire planet experiences global warming, different parts of the world experience it in very specific ways; global warming impacts particular human populations in highly variable ways. In this context, Amitav Ghosh has observed that “the Anthropocene has reversed the temporal order of modernity: those at the margins are now the first to experience the future that awaits all of us” (62–63).

Indeed, rising sea levels primarily concern those human populations that already battle existing vulnerabilities such as poverty and food as well as water scarcity. In *Tropic of Chaos* (2011), sociologist Christian Parenti anticipates a variety of socio-political changes:

In Bangladesh 22 million people will be forced from their homes by 2050 because of climate change. India is already building a militarized border fence along its 2,500-mile frontier with Bangladesh . . . Meanwhile, twenty-two Pacific Island nations, home to 7 million people, are planning for relocation as rising seas threaten them with national annihilations.

Parenti continues that there is a “catastrophic convergence” between “already existing crises of poverty and violence” and “impending dislocations of climate change”—problems that “compound and amplify each other” (7). These inequalities, which result in the perception that some human lives are more valuable and important than others, are among the many reasons that explain why the Global North has been (too) slow to respond to the environmental crisis in an adequate manner.

*Deep Blue Sea 3* acknowledges that global warming has had, and will continue to have, effects on the Global North, as well. While the number of 798 people who have fled the artificial island is, at first glance, relatively small, these 798 human beings amount to 99.75% of Little Happy's former human population (that is, if exactly 800 people used to inhabit the island). Although visually erased from the movie, as they are mentioned only once, these 798 human beings represent climate change refugees who flee from coastal regions in the Global South in search of safe(r) ground in the Global North. The film thus evokes the fear that rising sea levels may cause a colossal wave of climate refugees that will hit the Global North in the not-too-distant future.

In *Deep Blue Sea 3*, this imminent future has infiltrated the present in the largely invisible figure of fishermen who have to leave behind their ways of living. After having been forced to abandon their traditional ways of procuring food—based on a cosmology that viewed humans as a “unique species” that, however, “interacted and related with other species, plants and animals, in a way that showed respect and symbiotic interdependence” (Mawere 1)—and adapting to life in early twenty-first-century capitalism, the fishermen and their families had to desert their self-made outpost, too. For these fishermen, two ways of being, two worlds, vanished before the film's action even sets in; before, the movie implicitly suggests, White people even began to notice that changes were afoot. As such, the fishermen's spectral presence conveys the idea that the Anthropocene operates, as Kathryn Yusoff has so elaborately described, “as a politically infused geology and scientific/popular discourse [that] is just now noticing the extinction it has chosen to continually overlook in the making of its modernity and freedom” (*Black Anthropocenes* loc. 121). Although taking place on a relatively small scale

in the *Deep Blue Sea 3*, the fishermen's fate showcases the "catastrophic ruptures to social and ecological systems [that] have already been experienced [in the Global South] through the violent processes of empire," to draw on Elizabeth DeLoughrey's work (7).

However, when Emma stresses, "In case you are thinking this is someone else's life, this is what the Florida Keys will look like. And Houston. And New Orleans," her emphasis on the near future in the United States has two effects. First, by attempting to refocus the viewers' attention from pressing concerns in the Global South to impending catastrophes in the Global North, the movie demonstrates that its apparent focus on the dire situation in Mozambique is little more than a gesture at provincializing the Global North, to allude to the title of a book written by Dipesh Chakrabarty. Second, by drawing the viewers' attention to the United States, the film downplays the urgency of the situation, as Emma's utterance projects the effects of global warming into the future and renders them intangible, rather than bringing global warming "closer to home" by stressing that these particular American places will be hit by rising sea levels, as well. Indeed, since Emma's diagnosis entails no explicit call to action, this climate-changed future even becomes accepted as an irreversible fact.

To be sure, places such as the Keys and the Crescent City may, effectively, already be lost; nevertheless, the movie downplays the gravity of the situation even further when Emma redirects both the implied diegetic and real-world viewers' attention by remarking that "there is another side to Little Happy" with a smile on her face: an underwater paradise that is "one of the most biodiverse ecosystems on the planet." As Emma and her diving partner Eugene are navigating through the world beneath the ocean surface, the images evoke visu-

ally astonishing nature documentaries (Illustration 2). The score lends an air of fantasy to the scene, producing an out-of-this-world experience, as if viewers were witnessing a miracle. Both the slow, soothing movements of the fish and how the divers seem to float through the underwater world emphasize what Melody Jue has called “the alterity of the ocean environment” (28): breathing, moving, communicating—all of these processes, actions, and activities are radically different underwater when compared with the terrestrial environment. More importantly, time does not seem to operate according to the same principles as above the ocean surface: time slows down as the fish effortlessly move through their habitat. In her reading of Sylvia Earle’s book *Sea Change: A Message from the Oceans* (1995), Jue suggests that “diving can also be a science fictional strategy for moving across time” (64). The brief diving adventure in *Deep Blue Sea 3* introduces a different temporal effect: when Emma and Eugene are submerged, the viewers’ perception of time is altered; being underwater introduces a different temporality.



**Illustration 2:** At first, human activities do not seem to have impacted the underwater paradise. Screenshots from *Deep Blue Sea 3* © Warner Bros., 2020.

In addition, the underwater habitat, which seems to be untouched, but is now invaded by humans, conveys three inter-

related ideas. First, ecosystems unaffected by anthropogenic activities still exist. This notion clings to a dualist worldview that considers the natural world separate from the sphere of human influence. Of course, in reality, these domains are interwoven in intricate ways. Second, the discovery of a hidden natural paradise indicates that these types of places may still be discovered. Paradoxically, the movie suggests that humankind needs to continue to explore the planet in order to locate these paradisiacal places, which humans will invade and colonize by subjecting them to Western technoscientific capitalism. Significantly, the interconnections between scientific innovation, technological progress, and economic growth have steered the planet into the current environmental crisis. While *Deep Blue Sea 3* depicts Big Pharma as a cartoonish and abstract villain that is willing to turn anything into profits, marine biologist Richard Lowell seems largely unphased by Big Pharma's activities as long as they fund his research, hinting at the links between science and capitalism. By contrast, Emma and her team are idealists, studying sharks to protect not only them, but rather—since sharks are keystone species—the entire planet. Tellingly, the film ignores that sonar, which the team uses to track the shark population, impacts marine animals' behavior;<sup>1</sup> neither does the movie comment on the fact that Emma seems just as interested in her reach on Facebook and Instagram as in the sharks' wellbeing, entangling the scientists' endeavors with the platform capitalism of the twenty-first century. Finally, the opposition between

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1 For example, Lisa Sivle et al. have observed that exposure to sonar leads to “changes in the dive behavior” of in three whale species, which “impl[ies] disruption of feeding activity” (9), while Lucille Chapuis et al. have voiced concern about the fact that, in a study, “some sharks changed their behaviour in response to a ... sound level” that is much lower than “[m]ost anthropogenic sources (not only high intensity sources such as seismic air guns, pile driving and sonar, but also background noise like shipping)” (7).

ending particular ways of human existence above the ocean's surface and uncovering natural abundance beneath connects the beauty of the underwater world to the environmental destruction above: destruction brings about—or at least reveals—natural beauty. The worlds annihilated are, tellingly, Black, while Western scientists try to benefit off the natural beauty and abundance that the reef provides.

However, the movie soon makes clear that the underwater sanctuary is, in fact, not entirely cut off from the world of humans. When she informs viewers that the waters surrounding Little Happy are shark nurseries, Emma stresses that “their home, like ours, is under threat from climate change. Carbon emissions are absorbed by the ocean, more and more every year, resulting in warmer water temperatures, rising sea levels, food source loss, ocean acidification, and species extinction.” Bull sharks, rarely seen in the region because of the constant presence of great whites, emerge as the symbolic embodiments of the environmental threat. They mangle two great whites, which causes shark scientist Richard Lowell to speculate “that they’re adapting to climate change faster than the whites, which is making them highly aggressive towards everything . . . They’ll destroy everything we’re working to save.” The bull sharks become monstrous due to environmental changes and are figured as drivers of extinction in this particular moment.

The bull sharks’ behavior did not change “naturally” in response to anthropogenic climate changes, though, as Emma and her team come to understand; rather, the sharks escaped from a research facility. In the previous film in the series, a megalomaniacal scientist discovers a way to “alter the genetic structure of the brain, speeding up evolution in the direction of greater intelligence.” He believes that exploiting

this bio-technological wonder is “an absolute necessity if we want to maintain the supremacy of mankind.” The sharks are thus reduced to tools in a transhumanist project of human advancement. In view of this underlying narrative premise, *Deep Blue Sea 2* and *Deep Blue Sea 3* repeatedly evoke evolutionary processes and how both targeted human interventions in Nature’s design and the unintended side effect of anthropogenic activities that is global warming speed up evolution: processes that usually slowly unfold on a super-human timescale of millions of years suddenly become noticeable and measurable in human lifetimes; deep time becomes compressed and collapses into historical time. At the same time, historical time symbolically expands. Human time—and, thus, the human—is no longer “but a blip in a history and cosmology that remains fundamentally indifferent to this temporary eruption,” to turn Elizabeth Grosz’s reading of Charles Darwin’s impact on our understanding of human insignificance from a planetary point of view on its head (24–25). Instead, due to the scale of changes that take place within a relatively short period of time, historical time augments to the point of being effectively equal to deep time, as “human activities have become so pervasive and profound that they rival the great forces of Nature” (Steffen, Crutzen, and McNeill 614).

### SPATIAL DISRUPTIONS AND TEMPORAL COLLAPSE

Similar to *Deep Blue Sea 3*, *Crawl* makes climate change an explicit issue early on, as a category-five hurricane approaches Florida. After introducing Haley as a member of the University of Florida’s swimming team who specializes in front crawling to the ever-present rumbling of thunder in the sonic background, a television news show warns that “more than one million people are . . . facing mandatory evacuation” due

to the hurricane. Haley's sister Beth, who lives in Boston, calls. Their conversation exposes the conflicts in the Keller family: Beth has a young child, has seen the news about the impending hurricane, and is worried about their father, who does not return her calls. Their parents have recently divorced and their mother is in Paris with her new lover. Haley sides with her father, and Beth knows how to exploit this emotional bond. When Haley mentions that she will "check on him," Beth protests briefly, but Haley counters, "Then why did you call me?" before, somewhat jokingly, accusing her older sister of being "empathetic from a safe distance."

When Haley reaches her father's new apartment, the place looks deserted. He has not even unpacked all of his moving boxes and family photos are scattered across the rooms. In her book *Family Frames* (1997), Marianne Hirsch explains that family photos arrest "the flow of family life" and both preserve and celebrate "familial myths while seeming merely to record actual moments in family history." Photography's selective memory, she continues, "reduce[s] the strains of family life by sustaining an imaginary cohesion, even as it exacerbates them by creating images that real families cannot uphold" (7). Tellingly, as Haley rummages through the chaos, the camera catches two photos: the first depicts the two Keller sisters at Beth's graduation ceremony, smiling and holding each other, a reminder of a time before tension between them arose, while the second one shows what viewers, at this point, can only assume are their parents, their mom smiling into the camera and their father looking stoically. Haley seems to want these times, when the Keller family was closer, to return. Captured in a past moment that is not only prior to the parents' divorce and the family's dispersal into different parts of the world but before the natural force of the hurricane came to endanger the lives of two family mem-

bers, the photographed family functions as “a last vestige of protection” (Hirsch 13). In particular for Haley, the younger daughter, the family’s disintegration wrested the safe harbor of the family away from her. That the family home has been in escrow while the lawyers of Haley’s parents try to settle their divorce renders the loss of the traditional shelter that is the nuclear family even more explicit.

Eventually, Haley finds her father at their old family home and not in his new abode, figuratively trapped in the past and literally trapped in the crawl space beneath the building. In the claustrophobic space, Haley must confront her family’s past more explicitly. When Dave begins to regain his consciousness, he utters Beth’s name twice, either wishing her to return to Florida or expecting her rather than Haley to come to his rescue. As he is coming to his senses, Dave asks, “Why did you come here?” instead of thanking Haley. Tensions and disagreements define Haley and Dave’s present-day relationship: he used to be her swimming coach, but his blind ambition strained their relationship outside of sports.

As Haley tries to get Dave out of the crawl space, she primarily moves on all fours, which suggests, as Johan Höglund has explained, “that the human-nature divide is illusory. The crawlspace as territory forces Haley not only to touch the earth of which she is . . . a part; she must also become like an animal” (126). Arguably, Haley’s animal-likeness, which the movie’s first few moments establish through her association with the Florida Gators, becomes most explicit when she finds herself in the jaws of one of the reptiles (Illustration 3). Animal “predation on humans,” Lorraine Shannon remarks in an introduction to a posthumously published collection of Val Plumwood essays, “has a unique ability to . . . teach a lesson from the past we forget at our peril about the unconquer-

ability of the world we think we master” (ix). Humans are not apex predators, even if Dave may suggest otherwise when he tries to motivate Haley to exceed her limits. By reducing human bodies to their material dimension, to their being-food, the alligator attacks “provide . . . us with a perspective that can help us to see ourselves in ecological terms; . . . disrupting our view of ourselves as set apart and special,” to quote from Plumwood’s reflections on her nearly fatal encounter with a saltwater crocodile (16–17).



**Illustration 3:** The alligator threatens to reduce Haley to food.  
Screenshot from *Crawl* © Paramount Pictures, 2019.

While, initially, the blurring of the borderlines that traditionally separate humans from nonhumans is restricted to the liminal space of the crawl space, in the final third of the movie, the force of the water destroys windows, shattering the fragile dividing line between the human space of the house and the outside world. By invading the family home, the alligators collapse what, according to Bruno Latour, could be called one of the “great divides” of modernity—“two entirely distinct ontological zones: that of human beings on the one hand; that of nonhumans on the other” (10–11). The effects of global warming expose this distinction as a fiction and defamiliarize the world, highlighting what Rebecca Evans has described as “the strangeness of the stories that mo-

dernity has told (about) itself, estranging us from where we thought we lived by announcing our location in an unfamiliar world” (485). Bill McKibben has called this unfamiliar world Eearth—a world akin to the planet called Earth, but simultaneously radically different, an uncanny double of the world that we believe to know.

The alligators’ spatial transgression entails a temporal dimension, as well, as the reptiles introduce a temporality that transcends the human race. Similar to *Deep Blue Sea 3*, this temporal scale simultaneously exposes the insignificance of humankind in view of planetary time, which is embodied by the alligators, and highlights the increasing impact of capitalist activities on planetary processes, which is inseparably connected with extractive industries. Notably, whereas most of the *Crawl*’s action is set in the Keller home, the gas station across the street becomes a focal point when Haley spots three people looting it. As she tries to get their attention, hoping the strangers might help them, the alligators pick off one after the other looter (Illustration 4). By setting this violent scene at the gas station, it becomes symbolically entangled with what Peter Hitchcock has called oil’s “logic of accumulation and violence” (96). After all, on a very basic, material level, oil results from the accumulation of death: oil is based on dead organic matter and requires “a long, sequential process that starts with accumulation of biomass in sedimentary (marine or lacustrine) environments,” as Vaclav Smil has explained (56). Accordingly, petrocapitalism, Justin McBrien has noted, “tap[s] into deep time: the decayed, dead world [is] harnessed for sake of capital’s world-ecology” (122).

The setting of the gas station exposes contemporary capitalism’s extraction of energy and value from both past extinctions and various types of exploitative practices, past

and present. While the looters' actions seem to be outside of, maybe even opposed to, the operating principles of the capitalist system, the fact that they move in a boat powered by petrol brings the symbolism of the gas station full circle: fossil fuel is effectively everywhere—even if we might not always notice its spectral presence. Through the setting of the gas station, *Crawl* emphasizes the intricate interrelations between petroculturalism and the hurricane that collapsed the distinctions between human and nonhuman spaces.



**Illustration 4:** The alligator attacks foreground the gas station across the street. Screenshots from *Crawl* © Paramount Pictures, 2019.

Arguably, the human-devouring alligators figure as representatives of excessive consumption in this particular scene—symptoms of “fossil fuel capitalism’s burning desire to maximise profits before everything crashes” (Bould 131). However, the reptiles are not allowed to satisfy their seemingly insatiable hunger by consuming Haley, or Dave (the alligators admittedly get some bites off him), or the family dog. When they find themselves in a seemingly hopeless situation in the eye of the hurricane, trying to get to a boat, Haley embraces Dave’s mantra to become an apex predator, swims as fast as she can, and makes it to the boat. Unsurprisingly, coming at the seventy-minute mark, the boat does not ensure

safety, as a massive wave returns them to their house, where they fight off a few more alligators, but they make through the horrifying experience alive. Although Haley and Dave's survival may be read as testament to humankind's capacity to adapt to a changing world, problematically, they are rescued by a helicopter, powered—one must assume—by jet fuel. Accordingly, the movie concludes by figuring a product of petrocapi-talism as “solution” to the clear signs of environmental collapse that Haley and Dave witness, indicating that the fossil-fuel-powered system will continue “accumulating extinction[s]” (McBrien) at alarming rates before it will break down.

#### THE DEEP SEA AND THE UNEXPECTED CONSEQUENCES OF ANTHROPOGENIC ACTIVITIES

Whereas *Crawl* and *Deep Blue Sea 3* explicitly underscore the topic of global warming, *The Meg* is more subtle in how it negotiates the contemporary environmental crisis. Although the combination of “subtle” and “*The Meg*” may seem to be oxymoronic, the 2018 blockbuster starring Jason Statham exemplifies Mark Bould's point that “fiction [need not] be immediately and explicitly about climate change for it to be fiction about climate change” (3).

Based on Steve Alten's 1997 novel, *The Meg* focuses on a research team led by Dr. Minway Zhang, who speculates that “what we think is the bottom [of the Mariana Trench] might actually be a layer of hydrogen sulfide. Beneath that cloud, and a freezing cold thermocline, there could be a completely new world.” When the mission submersible, called *Origin*, reaches the bottom of the ocean, Zhang's thesis is verified, as the sub easily penetrates the layer. As the *Origin* emerges from the fog-like thermocline, the team first confronts utter

darkness. They drop lights, and what appears in front of their eyes is a healthy ecosystem. As the submersible makes its way through the underwater world, the fluorescent, somewhat alien lifeforms, and the way in which the sub seems to fly through the water evoke a science-fictional journey through outer space. In fact, *The Meg* introduces the aesthetic equation of the ocean and outer space earlier, when billionaire investor Jack Morris visits the research station he has funded. As his research team leads him through the underwater station, the tube-like hallways and the high-tech control center recall images of spaceships. When Jack looks out into the ocean, the whales and manta rays slowly moving across the screen seem to be flying (Illustration 5). And when Jack jokingly asks the chief medical officer, “You’re like Bones, huh?” the script makes explicit that *Meg’s* representation of the deep sea draws on science fiction aesthetics and tropes.



**Illustration 5:** *The Meg* figures the deep sea as outer space.  
Screenshots from *The Meg* © Warner Bros., 2018.

Upon seeing the first images from the bottom of the ocean, Zhang explains, “This ecosystem is completely cut off from

the rest of the ocean by the freezing cold thermocline. We should find all sorts of species completely unknown to science.” This sentence underlines that the adventure to the ocean floor is driven by scientific curiosity. Indeed, when the *Origin* deploys lights to illuminate the darkness of the deep sea, the positivist Enlightenment concept of science portrayed in *Meg* becomes visually literalized. In addition, Zhang’s excitedness about the prospect of discovering unknown species testifies to how little science, in fact, knows about the deep sea. As biologists Michael A. Rex and Ron J. Etter have noted, “Since most of the deep sea remains unexplored, we can hardly guess what other wonders exist there” (x). But Zhang’s hope of finding yet-to-be-discovered species in the “uncharted territory” of the world beneath the thermocline also evokes the specter of biodiversity loss. “Species,” Stacy Alaimo stresses in a reading of the documentaries *Aliens of the Deep* (2005) and *Cracking the Ocean Code* (2005), “must be ‘captured’ in some way before they are lost forever” (“Feminist Science Studies” 196). Yet by emphasizing that the newly discovered world is separated not only from the rest of the ocean but also from anthropogenic activities, Zhang repeats the treacherous idea that the deep sea was unaffected by human activities. However, “the oceans have changed more in the last thirty years than in all of human history before” (Roberts 3).

After a megalodon has attacked the *Origin* and two submersibles have come to the crew’s rescue, the submersibles’ return to the surface momentarily collapses the thermocline. A team member explains: “When the glider came up, the thermocline was intact. So, it was one degree Celsius, right? . . . But a minute later, when the *Evolution* came up, the temperature increased by 25 degrees.” In their quest to conquer the next frontier of science, the research team’s exploration of

the deep sea, which evokes lost-world tales of the late nineteenth and early twentieth centuries that imagined encounters between modern Europeans and their evolutionary predecessors in faraway places (see Rieder), initiates a change in temperature. While this human-caused alteration of the underwater environment is temporary, it nevertheless brings about larger-scale consequences.

Indeed, when the research team penetrates the hydrogen sulfide layer, they set in motion what Robert Macfarlane has called an “Anthropocene unburial”: “[f]orces, objects and substances thought safely confined to the underworld are declaring themselves above ground with powerful consequences.” In this context, Macfarlane thinks not only of the “unburials” of mammoths and other prehistoric creatures due to melting ice but also of methane deposits that are uncovered due to thawing permafrost.<sup>2</sup> In *The Meg*, the penetration of the thermocline and the subsequent journey to the bottom of the ocean awakes a sleeping giant, as two megalodons trail the submersibles to the surface. The deep sea becomes symbolically interconnected with deep time through the figure of the prehistoric sharks, which attack in the present historical moment and which introduce a “derangement of scale” (Clark, “Scale”). The super-sized megalodon, which is subtly likened to a tectonic shift as it approaches the first research submersible, is, to quote Timothy Clark out of context, an “emergent scale effect,” as “human actions, insignificant in themselves, . . . come together to form a new, imponderable physical event” (*Ecocriticism* 103).

When Zhang concludes that the monster that they have un-

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2 For recent articles that—more or less explicitly—discuss some of these “Anthropocene unburials,” see Canavan; Fuchs; Keetley; Tidwell.

leashed is the result of a typical human error (“We did what people always do: discover and then destroy”), this statement problematically imagines a uniform humanity that is at fault. This uncritical universalism erases various differences in terms of past and present culpabilities in the environmental dilemma today. For example, Kathryn Yusoff has pointed out that a universal “humanity is deployed as a method of erasure that obfuscates climate racism, social injustice in fossil fuels, and differentiated histories of responsibilities through homogenization in a ‘we’ of the Anthropocene” (“Anthropogenesis” 6–7). Indeed, Zhang’s “what people always do” refers primarily to Enlightenment discourses and their long-term effects on the definition of science as well as the production and maintenance of Western knowledge systems.

This aspect is important insofar as *Meg* decidedly uses its setting in Southeast Asia to distance the Western world from some of the environmental problems on display. First, after the megalodon has escaped from its sanctuary in the deep blue sea, it attacks a fishing vessel. “These sharks have no fins,” observes a character. Zhang explains, “They were killed by shark poachers. They cut off the fins and throw the shark back to die. All for a bowl of soup.” “Looks like the meg evened the score,” another character quips. Apart from acknowledging the long tradition of animals as agents of Nature’s revenge in horror and science fiction, the fact that the scientist details the cruelty of shark finning in a movie that concludes with the visual spectacle of the megalodon’s belly being slit open by using one of the *Evolution*’s wings and hundreds of present-day sharks eating it alive reveals *The Meg*’s double standard (Illustration 6): the movie takes issue with human activities that endanger the natural world, but at the same time, it exploits and spectacularizes the environmentalist ideas that some characters embody. Tellingly, the film’s trau-

matized hero, Jonas Taylor, stresses at one point, “You ever think that Mother Nature might know what she’s doing? That the thermocline might just be there for a reason?” However, Jonas wastes little thought on killing the megalodon, since he embraces anthropocentrism: “It’s about the people you save.”



**Illustration 6:** Modern-day sharks feast on the megalodon.  
Screenshot from *The Meg* © Warner Bros., 2018.

Returning to the killing of contemporary sharks, *The Meg*'s main setting in the Indian Ocean displaces the problem of shark finning to Asia. According to a 2015 United Nations report, Spain is among the largest exporters of shark fins on the globe (97–103). Although the report acknowledges that the United States is “not a major market or producer” (85), it also diagnoses a major disagreement between exports reported by the United States and imports from the United States reported by countries such as China—the second number being more than 70% higher in terms of volume (86). Of course, these contexts are glossed over to present shark finning as an Asian problem.

Likewise, when the megalodon approaches the southern coast of Hainan in China, the shark passes various kinds of plastic waste. Although plastic waste is on display for less than four seconds and even though the amount of plastic pollution in the water may not seem excessive and the coast,

in general, appears clean, the very presence of plastic waste provides an uncanny reminder of unnatural materials that humans have introduced to ecosystems across the planet (Illustration 7). While *The Meg* places plastic pollution in the Indian Ocean, currents may carry plastics to places on the other side of the globe, where they are deposited. Or they might, as Guangfa Zhong and Xiaotong Peng have reported, end up nearly 2,000 meters below the ocean surface. Besides its toxic composition and waste produced during its production, plastics are practically indestructible; they do not biodegrade, but exposure to ultraviolet radiation may break them apart. Even so, plastics continue to exist—in the water, in the soil, in human and nonhuman bodies, etc. Accordingly, plastics is one of the ways in which, to draw on David Farrier, “we will be remembered by the very deep future” (loc. 287). At the same time, plastics are monuments to the past, produced from fossil fuels that were millions of years in the making. Placed in front of the gigantic prehistoric shark (that has invaded the present), the small pieces of plastic waste make visible that “[t]he deep time of geology . . . is collapsing into the historical time of human technology” (Gan et al. G12).



**Illustration 7:** Plastic pollution and the prehistoric shark.  
Screenshot from *The Meg* © Warner Bros., 2018.

### AQUATIC GHOSTS OF FUTURES PAST

Gerry Canavan has explained that the monsters rising from the deep sea or the hollow earth in blockbusters such as the latest *Godzilla* movies (2014, 2019) are “plain allegor[ies] for rising sea levels” (270): figured as giant creatures, global warming can, in theory, be defeated. However, since “[i]t seems to be easier for us today to imagine the thoroughgoing deterioration of the earth and of nature than the breakdown of late capitalism” (Jameson xii), one comes to realize that the only way to vanquish the beasts is to leverage the very system that unleashed the monsters, to begin with. As a result, “even ‘happy crisis’ figurations of climate change like *Pacific Rim* collapse in the end into cosmic pessimism” (Canavan 270–271).

To be sure, all three movies discussed in this article celebrate human heroism or perseverance. In *The Meg*, Jonas cuts open the megalodon, thus preparing it for the hundreds of other sharks to feed on; in *Crawl*, Haley and her dad (and the family dog) somehow survive the repeated alligator attacks; and in *Deep Blue Sea 3*, three women of different ethnicities decide to return to civilization. In all three cases, the threat seems contained. But this “seems” is key. As early as 2001, Stacy Alaimo suggested that natural horror movies “could be the single most significant genre for ecocriticism and green cultural studies” because “these films wrangle in messy but piercing ways with the fundamental issues of green philosophy and politics” (“Discomforting Creatures” 279). The “messiness” Alaimo highlighted two decades ago echoes in Nicole Seymour’s more recent notion of “bad environmentalism”—cultural artifacts that “embrace . . . contradiction, imperfection, and ambiguity” (232).

For example, *Deep Blue Sea 3* explicitly depicts humans as the real monsters and that the megalodons merely respond

to humans invading their habitat. Nevertheless, all three movies, in the end, celebrate human resourcefulness and resolve. While some of the human survivors may be more battle-scarred than others, all three films' protagonists survive their encounters with the monstrous animals. However, as already Jeffrey Cohen noted, the monster "can be dispersed temporarily, but [it] by definition returns" (5). To be sure, a sequel for *The Meg* is planned and one for *Crawl* purportedly in discussion, but this is not my point. In *The Meg*, the characters first believe that one megalodon broke through the thermocline, only to find out that, to quote a different popular culture artifact, "There's always a bigger fish"—so, who's to say that the shark that evolution caught up with was the last megalodon? In *Crawl*, Haley may have trapped one of the gators in a bathroom, but nobody knows how many reptiles, in fact, entered the family home, let alone settled outside it. And while the three genetically modified sharks encountered in *Deep Blue Sea 3* may be dead, the end of the previous film saw a larger group escape from the research facility. Where are the other bull sharks? In the end, defeating the animal monster might appear to be a victory, but it can only be a momentary victory that not only dramatically simplifies the complexity of the environmental issues anthropogenic activities have maneuvered the planet into but also literalizes the eradication of the natural world.

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