

# Explore the complexities and beauty of Earth's oceans in *Blue Planet II*

Bryan Dyne  
22 January 2018

*Blue Planet II* aired its seventh and final episode on BBC One on December 10, 2017. It was simultaneously broadcast across Europe and Asia on BBC affiliates, is currently airing in Canada and the US and will air in Australia starting in February.

Earth's oceans cover 70 percent of its surface and provide somewhere between 97 and 99 percent of the planet's inhabitable space. The quantity and variety of marine life far exceeds that found on land, and some species have survived in the same form for hundreds of millions of years. Sixteen years ago, the BBC aired the first documentary to reveal this largely unknown part of our world to millions of people, from orcas pursuing grey whales like a pack of underwater wolves to the limestone skeleton of coral reefs and the millions of polyps that cover them. These depths are once again explored in *Blue Planet II*.

The documentary is in every aspect a remarkable work, one that should be watched as broadly as possible. Similar to its predecessor *Planet Earth II*, the series involved a massive amount of labor: the series took four years to produce, starting in 2013, and involved 125 expeditions across 39 countries and all seven continents. An estimated 4,000 dives produced more than 6,000 hours of high quality audio and video footage, all of which were carefully studied to weave together the seven-hour narrative. The documentary also features the song (*Ocean*) *Bloom*, a collaboration between Hans Zimmer and Radiohead inspired by Radiohead's song *Bloom*, which in turn was inspired by the original *Blue Planet*. David Attenborough—now 91—provides narration that both captivates and at the same time instills a sense of empathy and understanding for ocean life throughout the whole work.

Perhaps the most extraordinary facet of the series, however, is that the majority of the footage is *underwater*, often several and sometimes hundreds of meters deep. The changing temperatures, pressures, lack of light, currents, obstacles, falling debris and creatures themselves make ocean environments in many ways harder to get to and more hostile to humans than outer space. The lowest layer of the ocean, aptly named the abyss, is less explored than our Solar System. The living things that inhabit these spaces are often far removed from our everyday experience and in many cases are, to quote Attenborough, “beyond imagination.” That all of this and more has been catalogued in such high quality is a powerful vindication of what can be achieved with scientifically coordinated and rationally planned human activity.

*Blue Planet II* also stands as a breath of fresh air in a world of movies and television dominated by unending reality TV and superhero sequels and remakes. Each episode was watched live on the BBC by between 11 and 14 million people, with millions more across Europe, Asia by various means online. The show outperformed *Britain's Got Talent*, *Strictly Come Dancing* and *Broadchurch* to become the highest rated show on BBC One. These represent a healthy and human need to understand and connect to the world within which we live, especially at a time when political life is dominated by figures such as Donald Trump.

To capture what life is like in the extreme places shown in the

documentary, the production team was often forced to invent new technologies. One example is their “Mega-dome” camera which captures high definition footage above and below the waterline at the same time. Another is suction technology developed to attach cameras onto larger ocean animals, like sharks and whales, to watch them travel and hunt from a first person perspective while at the same time minimizing any impact their lives. The team also used a pair of advanced submersibles to dive 1,000 meters into the Antarctic Ocean, gathering footage of behaviors that have never before been witnessed. There are already at least twelve scientific papers based on what was uncovered throughout the filming of the series.

All of these techniques and more were used to craft the documentary's seven episodes, each of which covers a different part of the ocean, including the open ocean, the deep, coral reefs, underwater forests and coasts. The footage is weaved together both to paint a portrait of what life is like beneath the waves and to show how much of what was observed is more common across different species and habitats than previously thought. The first through sixth episodes also feature a post-episode vignette, *Into the Blue*, each of which reveals some of the many hurdles that had to be overcome in order to capture the needed footage. They both provide a sense of the scale of the endeavor as a whole and stand as a reminder that the footage of each episode is not from a soundstage or large water tank, but life in the oceans as it is.

One of the more significant threads throughout *Blue Planet II* team is how social and intelligent marine life often is. While many of these behaviors had been known beforehand, the documentary is the first time that many of them have been recorded by professional filmmakers. For example, it has been known that bottlenose dolphins surf on waves for practice, exercise and simply the fun of it, but it was far less known that they also regularly socialize with another species of dolphin—false killer whales. The first episode, *One Ocean*, shows how, once a year during spring off the coast of New Zealand, pods of false killer whales seek out pods of bottlenose dolphins. The false killers home in on the dolphins' clicks and squeaks, which can be heard for miles underwater. When the false killers finally catch up to the dolphins, they don't try to eat them, they seem to try to talk to them. From observations of both species, when the two meet, their calls change, seemingly in an attempt to communicate with each other. Their interactions also suggest that individuals of each species recognize members of the other through a friendship whose origin is still unknown. Together, the dolphins and the false killers form into a “super pod” and together enjoy the bounties of New Zealand's spring and summer.

The aquatic life in Australia's Great Barrier Reef also has alliances between different species. In one sequence, viewers meet a coral grouper and an octopus. Both animals feed on smaller coral fish, and in some cases might be rivals. Instead, the two very different species communicate through the color of their scales and orientation of their bodies and team up. The octopus slides its tentacles into parts of the reef and catches the

small fish and those that escape are caught by the coral grouper. As a pair, they successfully hunt their prey where they would otherwise fail alone.

Marine creatures were also filmed using rocks, shells and reefs as tools. To eat the soft inner part of a clam, a tuskfish in the Great Barrier Reef was filmed bringing the clam to a specific part of the reef and repeatedly hitting the clam against one spot until it broke open. The coloring and texture of this part of the reef suggests that the tuskfish does this repeatedly, using the reef itself as a tool. In a different segment, an octopus is being hunted by a pajama shark. It attempts different methods of evasion, including hiding among rocks and coral, but is still hounded. In the end, the octopus outsmarts the shark by disguising herself with an armor of shells, mimicking the surrounding rocks and coral. This is a behavior never before recorded on film.

A sequence in the sixth episode, *Coasts*, features sea lions in the Galapagos Islands, who must eat as much as they can to get as big as possible to attract a mate. They have a hard time, however, catching their preferred prey, yellow-finned tuna, in the open ocean. Each tuna weighs 60 kilograms, swims at a maximum of 40 knots and can generally avoid sea lions, especially when they hunt alone. In order to catch the tuna, the sea lions must have the foresight, planning and cooperation to drive shoals of tuna into small coastal alcoves, using some of their number to hunt while others prevent the tuna from escaping. In this manner, the sea lions are able to make the most of their available resources.

In contrast to coastal areas, the open ocean is barren, a “marine desert,” and is a difficult place to live, especially for its largest inhabitants. Sperm whales are one of the most massive ocean dwellers and, as mammals, must breathe air regularly to survive. Their primary source of food, however, are squid that live hundreds or thousands of meters deep in the ocean. In order to feed, they take a series of deep breaths to saturate their blood with oxygen and then dive hundreds or thousands of meters deep. The young are unable to dive that deep, and are often forced to wait on the surface for hours, waiting for their mothers to return full of squid and with fresh milk.

The wandering albatross population of South Georgia, which has been studied by scientists for forty years, faces similar problems. They are the largest known bird and live almost entirely off of fish and squid, which are rare finds in the expanse of the South Atlantic. In order to raise their young, they are forced to search thousands of square miles of ocean every day for nine months. This is particularly difficult for elderly parents, who force themselves to undertake this flight for their young even if they never recover from their exertions.

One of the most difficult scenes to shoot was the mating of coral groupers in the waters surrounding French Polynesia. Thousands of groupers gather once a year to spawn billions of eggs, of which only a small minority survive. To maximize the chances of the fertilized eggs being spread, the groupers time the release of their eggs with the tide. All the while, they must do their best to avoid grey reef sharks, which know the grouper mating is when the fish are all gathered in one place and when they are most vulnerable. The whole process takes less than an hour.

As shown in the third *Into the Blue* vignette, the crew sought to use the ascension of the Moon as a gauge for when the groupers would mate. When the dive crew deployed ahead of the predicted time, they didn't find groupers preparing to mate but were met with stronger than expected ocean currents and hundreds of very active sharks. They were forced to withdraw and missed the mating. Although initially discouraged, the team used what they had learned in the following year, bringing a larger dive team that could film the mating waters around the clock. Their perseverance paid off when they were able to capture on film one of the rarest and most perilous mating rituals in the ocean.

The seventh episode, *Our Blue Planet*, revisits some of the vistas of earlier episodes to probe how human activity has impacted the oceans. Rather than focusing on the marine life, the episode highlights some of the

many people involved that study the oceans and the projects that are undertaken to preserve marine life. One such example is in Norway, where over a billion herring gather in the Arctic Ocean once a year. Teams of marine biologists study the movement of the herring as well as their predators such as orcas in order to keep the populations of both healthy. Their research is also used by local fisheries, which now work together with the scientists to harvest the fish in sufficient quantities to provide food but not so much that the herring population is driven to extinction, as almost happened in the 1960s.

The program also of course acknowledges the negative impact humans have had on life underwater. Plastic, since its invention about one hundred years ago, has found its way to every corner and crevasse of the world's oceans. Some parts of the ocean have an estimated one million pieces of plastic per square mile. As a result, it has also become a sometimes fatal part of the diet for a variety of creatures. Animals from wandering albatross to plankton to dolphins have been found dead from ingesting both whole plastic objects or the microscopic bits of plastic that steadily leak into the ocean as larger objects break down.

While these and other sequences are sobering, the show as a whole is not pessimistic. Attenborough guides the viewers through both the ways that ocean life preserves itself as well as interviews with various researchers on the necessary steps for humans and a high level of industrial activity to co-exist with marine life. One of the most important tasks that the show highlights is the need to understand every migration pattern of every living thing in the ocean, such as the whale shark, which is routinely and accidentally caught in large fishing nets. This sort of information lets ships steer clear of these creatures and, importantly, their breeding waters.

This is a welcome approach towards topics that could easily take a Malthusian attitude toward the world's population. Rather than arguing that humans should cease and desist developing technology at every level, the series stresses the need for coordinated and scientifically planned human activity with regards to the oceans. In turn, it inherently makes the case for coordinated and scientifically planned human activity on a global scale.

Ultimately, *Blue Planet II* inspires a sense of wonder, awe and understanding about the myriad and fantastic nature of life beneath the waves. It provides a sense of connection between the struggles of even the most esoteric and seemingly alien members of the ocean's environment to the day-to-day struggles of the vast majority of the world's population, which are not so different after all. The documentary powerfully argues that, even when facing catastrophe—especially when facing catastrophe—humanity and every bit of life on Earth must be fought for.



To contact the WSWs and the  
Socialist Equality Party visit:

**[wsws.org/contact](https://wsws.org/contact)**