

Blue Planet II

– in the midst of a feeding frenzy

The most notable natural history series of 2017, for sure, was *Blue Planet II*, attracting massive audiences worldwide as well as important evidence of the damage human activity is doing to the oceans. Episode 5 'Green Seas' was perhaps one of the more optimistic episodes in the series, showing the abundance of sealife still present in some areas – none more spectacular in scale than the huge feeding frenzy of humpback whales and dolphins taking their fill of a massive 'bait ball' of anchovies in Monterey Bay – all captured in wonderful slow-motion by IAWF member **Mark Payne-Gill**.



Breaching humpback whales were a common site in Monterey Bay, although it was very challenging to predict just where and when they would appear

Luck can play a huge part in the process of making wildlife films. There's only so much that can be planned and anticipated in advance of shooting for a landmark wildlife series like *Blue Planet II*. The rest sometimes comes down to fate, so being in the right place at the right time is key to this.

While *Blue Planet II* was in production, another BBC ocean series happened to be enjoying incredible success for just these reasons. Broadcast in October 2015, *Big Blue Live* was perhaps one of the most ambitious live wildlife TV series ever commissioned. It succeeded in bringing to our homes incredible live footage of the ocean life around Monterey Bay on the US Pacific Coast. A series of fortunate events had sparked an amazing happening in the Bay and brought together hundreds of humpback whales, thousands of dolphins and sea lions, not to mention an array of different species of seabird.

This was a truly spectacular concentration of sea life, rarely witnessed let alone filmed so close to the shoreline. Strong currents originating deep in an ocean trench that runs along the coastline had brought tonnes of anchovies close to the surface. These formed giant 'bait balls' of food, which were attracting an impressive variety of ocean feeders, big and small, including some of the planet's most spectacular sea creatures. Large groups of humpback whales were 'lunge feeding', simultaneously shooting up to the surface with their monster-sized mouths wide open, trapping as many fish as possible. Others were simply breaching right out of the ocean in a playful fashion, slamming into the surface and creating immense explosions of water. Amateur footage filmed from a local tourist boat recorded some unique behaviour of orcas hunting sea lions and dolphins while they were distracted by the gluttony of food. One unfortunate victim was being 'played' with before being eaten by a male orca, smacking it with its tail, the force of which sent it flying out of the water, repeatedly, time and time again.

With such unusual riches of animal behaviour available to see, *Blue Planet II* was keen to send a film crew to Monterey Bay as soon as possible to film for the 'Green Seas' episode. So, with less than a week's notice, I was on a flight to San Francisco with series producer Mark Brownlow to join up with assistant Will Goldenberg, with the aim of documenting pretty much what the *Big Blue Live* team had filmed the



Humpback whales producing 'rainbows' while exhaling from their blowholes

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Mark Payne-Gill and Will Goldenberg getting the Ronin and camera rig ready to shoot

previous week. It was important that we originated our own footage though as the style and camera formats of the live shows were not suitable for the feel and style of *Blue Planet II*.

The main brief was to film orcas hunting dolphins, but we hoped at the very least to film a humpback spectacle, breaching and lunge feeding on the anchovy bait balls in large concentrations, along with dolphins and sea lions.

We had to have faith that the spectacle happening in Monterey Bay would continue for the duration of my assignment, as this concentration of animals could disperse at any time.

Whale watching 'tourist class'

To keep things cost-efficient we took a simple approach to begin with. For the first week, twice a day, we planned to join The Monterey Bay Whale Watch and head out into the bay on a tourist boat. This would give us a good idea whether there was enough activity to justify chartering our own boat for the rest of the trip and bringing out a Cineflex for the last week. We kept kit to a minimum. Although not my usual first choice of camera, the need to have the option of shooting above 60fps at 4K meant a RED Dragon was selected. This would be used on a Ronin gimbal to help

stabilise shots and an Easyrig for support over long periods of operation. Lenses included an HJ18 Canon with IBE PL adapter to give reach should the action be distant, along with a better and lighter 70–200mm lens and 1.4x extender if we got consistently close enough to the whales.

On day one, it wasn't long before we came across lots of activity. Huge schools of dolphins, perhaps 1000 or so individuals, appeared nearby, racing across the water at great speed. In the distance, we could also make out large splashes breaking the horizon, signalling the presence of a group of humpback whales. Hoping these were in the middle of a lunge feeding frenzy, our skipper, Nancy, rushed the boat over to this area, with dolphins in hot pursuit all around us. To my amazement and the great delight of the tourists, we had found a huge anchovy bait ball, with thousands of seabirds swirling close to the water trying to pick off fish near the surface. Suddenly, to the side of the boat, 1,2,3 then 4 – and so on up to 20 humpbacks were breaking the surface of the water, so close together they were virtually on top of each other. They soared up, jaws wide open, filling their giant

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Filming off speed can produce the effect of a gimbal so, using a steady hand and riding out the swell, I found that filming at 100fps and upwards was very effective at producing stable footage.

mouths as they sank back down, slowly closing their jaws to leave only the baleen exposed to filter out the water and trap a huge mass of the tiny anchovies.

A few minutes later this happened again. However, by now fully rigged up with the Ronin and camera ready to shoot, I was to discover a problem: I couldn't get a clear shot through all the tourists jostling for prime views of the activity, which was barely 100 metres from the side of the boat. After some polite bargaining, I managed to squeeze through to the front, just in time to film 16 humpbacks lunging out of the water to grab another giant mouthful of anchovies. This was incredible for the first shot of the day! Definitely not the usual start to a natural history shoot. This activity continued for another 45 minutes before calming down as the bait ball of fish was either depleted or had sunk back down to the ocean depths.

Keeping it steady

We were so lucky that the activity first captured live on *Big Blue Live* showed no sign of abating. During the following week, I was able to continually film details of this spectacle, with the whales sometimes swimming very close to our boat indeed. However, filming from a moving platform was difficult and was proving challenging for the kit, which became frustratingly unreliable at times. On most days, the ocean swell made operating very difficult. Even when the sea was calm, with no chop, big swells would come in from the open ocean into the bay, causing the boat to rock drastically from side to side. I would have to frequently reboot the Ronin costing us valuable time. When this happened, I found it far better to go handheld and just use the Easyrig to support the weight of the camera and lens. Filming off speed can actually produce the effect of a gimbal so, using a steady hand and riding out the swell, I found that filming at 100fps and upwards was very effective at producing stable

Dolphins would often surround the boat in our search for humpback whales; sometimes there were as many as 1000 individuals



footage. In fact, this proved so successful that plans to send out a Cineflex with an operator for big close-up details were postponed until just the last few days of the shoot.

Expect the unexpected

With some great footage of the humpbacks already in the can, we turned our attention to filming orcas hunting dolphins, our primary goal. On each day that we searched for humpback whale activity, we would see dolphins in large pods, sometimes travelling at great speed, porpoising right out of the water as if being chased. Nancy explained that this was indeed most likely what was happening, with a nearby orca sending the dolphins into a panic. Seeing this was one thing, but trying to make sense of it on camera was not easy. We saw many high-speed chases between orcas and dolphins that never came to anything, until one afternoon, not far from the harbour wall, we found a large group of orcas. They spotted some dolphins nearby and began to hunt, sending them – as luck would have it – straight towards our boat. It looked like a perfect scenario unfolding in front of us.

However, filming them didn't quite go to plan. One dolphin became isolated from the main group and began to use our boat as cover from the orcas. It attempted to make a swim back towards the safety of its pod, only to be chased back to the boat. We were virtually on top of the action making it impossible to see anything from the camera's vantage point. To frustrate things even further, everything appeared to be happening below the water's surface with an orca occasionally breaching out of the water. Trapped next to our boat, the dolphin made its last dash before eventually being chased down and dragged under the water by a big male orca. A few moments later all we could see was a frenzy of fins and splashing as the water turned red. There was little topside action to be seen and underwater cameras were useless in the murky waters.

Under our own steam

With so much activity still going on, it was worth chartering our own boat at this stage. I needed to film the humpbacks breaching and to get a lower angle on the lunge feeding. For this we hired legendary photographer Bob Talbot, with his small but powerful inflatable rib. This would give us much more flexibility and control than filming from the tourist boat had allowed, and a better chance to rapidly approach any distant breaching before it stopped. The Ronin proved far too cumbersome to manage safely on such an unstable moving platform, so I made the decision to shoot handheld again, this time at 150fps, which meant dropping the resolution to 3K.

We didn't have to go far on our first morning before coming across a small group of humpbacks. We were barely 100 metres from the shoreline when three whales appeared close by, their blowholes blasting exhaled air high into the sky as they gently cruised around us in super-calm waters. They appeared to be feeding quite lazily just under the surface without any regard for us. So much so that as I was filming one of the tail flukes arcing up and down, the lens reached minimum focus! All three flukes then rose up again and sunk in unison below the surface moving directly under our tiny inflatable. After what seemed like an eternity, they reappeared about 20 metres the other side of us. It was a heart-stopping moment that even Bob had rarely encountered. Most importantly, it allowed me to get steady close-up shots that definitely would not have been possible from the bigger tourist boat.



Keeping the setup simple and cost-effective delivered surprisingly smooth footage, shooting with an Easyrig and frame rates from 100fps

During our time out on the water, we would see humpbacks breaching clean out of the sea many times, but there would be no warning and the activity would often stop before our boat was in the right place. Late one afternoon though, just as the light was turning a more pleasant colour temperature, out of nowhere one of the biggest humpbacks we'd seen so far erupted from the sea not far from us. A few minutes later it happened again but this time closer. Handholding the camera gave me the freedom to quickly swing round to the whale, frame up and record before it was out of the water and could disappear again. For around 30 minutes the whale repeated this breaching behaviour, again and again, jumping like popcorn all around us, sometimes far, sometimes close to us. Each time it provided an opportunity to frame up for the next breach and successfully guess where it would reappear. A little nerve-wracking not knowing exactly where this might be, but Bob reassured us the sound of the engine idling was enough for the whale to know where we were. Just as well, as the next leap felt like it was almost on top of us. Rocketing out of the water this leviathan seemed to defy gravity as it lifted its immense weight clear of the sea, water streaming off its body before it slammed back down, producing a mountainous splash, completely filling the frame.

With that little bit of luck, we had found ourselves in the right place at the right time. After nearly four weeks of filming it had taken just 30 minutes to shoot the best shots of the trip, which created an iconic slow-motion sequence seen in the climax of the episode.



Fact File

GTC and IAWF member **Mark Payne-Gill** is a wildlife cameraman specialising in many aspects of filming wildlife behaviour, including long lens, macro, high-speed and low light techniques. He has developed unique ways to film the night sky and is the specialist cameraman for the BBC's *Stargazing Live* series.

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