

OCEAN MYSTERIES

This entertaining new series - hosted by larger-than-life marine biologist **Tom Hird AKA "The Blowfish"** - combines insane stunts and pop-science demos with stunning natural history footage and engaging analogies to unravel the baffling mysteries behind a colourful cast of ocean creatures – from iconic species we know and love to those that are the stuff of nightmares!



“ The seas are incredible alien worlds, where nothing is as it seems. Unravelling the mysteries of the ocean and seeing their mind-blowing truths is going to be AMAZING!

TOM HIRD – “THE BLOWFISH”

INTRO



OUR OCEANS ARE AMAZING. They cover 70% of the Earth's surface, contain 90% of the planet's living biomass, produce more oxygen than all the world's forests, and absorb around 30% of global carbon dioxide...

...And although ocean science is revealing fascinating new insights into our **'blue planet'**, which are helping drive forward solutions to save it from destruction, 95% of our oceans remain unexplored – **NO WONDER THEY'RE LOADED WITH MYSTERIES THAT ARE YET TO BE EXPLAINED OR FULLY UNDERSTOOD...**

TOM HIRD AKA “THE BLOWFISH” is a charismatic marine biologist with a **BIG** personality, a **HUGE** passion for the ocean, and an **IMPRESSIVE** knowledge of marine life.

During his wild travels, Blowfish has encountered a slew of **popular myths** concerning the creatures that live in our oceans, as well as **mind-bending, true tales of animal behaviours** that many people would find hard to believe....

These are the types of stories that really fire his imagination!

Now, he’s on a quest to explore these **underwater mysteries** in true “Blowfish style” – **energetic, hands-on stunts and investigations** combined with **infectious enthusiasm and bags of encyclopaedic knowledge** of marine life that will blow your mind!



Blowfish is keen to uncover any scientific evidence to establish whether or not there's any truth behind the **myths** he's heard about or if they're just **fabricated tales** that have found their way into both mainstream and social media... And he wants to unravel the **biological secrets** behind the **strange but true animal behaviours** that seem to defy evolution – **freakish adaptations** that help them to survive in their undersea worlds.

For example:

- **Can a shark really smell a drop of blood a mile away?**
- **Are piranhas the man-eating monsters we've been led to believe?**
- **How do shrimps kill with a single deadly punch?**
- **How do Hagfish - an alien eel-like beast - asphyxiate fish and sharks with clouds of slime?**

This awe-inspiring series not only lifts the lid of some of the ocean's greatest mysteries, but brings the secrets and wonders beneath the waves alive for a global audience.



SERIES OUTLINE IN BRIEF



This lightly formatted series will showcase **an intriguing mix of ocean mysteries** in each episode, and Blowfish will carry out his investigations from **a 'den' packed full of fascinating ocean-themed objects** – with the stunts/demos taking place close by in various locations from disused warehouses to junk yards to quarries...

The Intro

Each investigation will begin with an **entertaining intro** from Blowfish. Using **stunning natural history archive**, he'll reveal each marine animal in their natural environment, while providing plenty of fascinating **'take home info' and 'trivia'** about their lives and behaviours, including: *social structures, communication, intelligence, hunting techniques, mating rituals, unique physical adaptations...*

A man with a beard and short hair, wearing a dark t-shirt, is looking intently at a large, illuminated aquarium tank. The tank is filled with various colorful fish swimming in blue water. The background is dark and out of focus, suggesting an indoor setting like a museum or aquarium.

'Blowfish Theories'

Blowfish will draw on his **vast knowledge and experience** as a marine biologist when sharing his initial insights and ideas about each mystery, before devising a plan for the stunts/demos he'll need to set up.

He'll hypothesize about how each **'MYTH'** might have started, while scrutinising user generated footage, iconic movie scenes, and eyewitness accounts...

... And he'll share his assumptions about each **'MYSTERY ANIMAL BEHAVIOUR'** as he attempts to decipher how marine creatures are capable of doing so many things that humans could never have imagined possible.

A man with a beard and a dark t-shirt is holding a mallet in his right hand, looking down at it with a focused expression. The background is dark with some teal-colored horizontal bars at the top. The overall lighting is dim, with a teal tint.

Stunts/Demos

Visually entertaining, scientifically controlled **stunts** and **demos** devised and set up by Blowfish will play an important role in each investigation – helping Blowfish to **bust** or **verify** the **myths** and to reveal the **mysterious biological mechanisms** behind awesome animal behaviours.

The Reveal

Once the results of the stunts/demos are in, Blowfish will interpret them before giving his verdict on each ocean mystery investigation: he'll declare whether or not he was able to **make the truth stick to the 'myths'**, and, if not, whether he thinks there is a slither of truth behind them, which could help explain why they've become so widely accepted as 'fact'... And reveal the strange but true science behind **mysterious ocean animal behaviours** to demonstrate how they are able to do what they do.

EXAMPLE STUNTS & DEMOS



CAN A SHARK REALLY SMELL A DROP OF HUMAN BLOOD A MILE AWAY?

This is one of the **oldest and longest** running of all **myths about sharks**.

Is there any truth behind this widely accepted 'shark fact' and how did it start?

People are so fearful of these apex predators - could that be where the myth about their ability to smell a tiny drop of blood from miles away have come from? **Or is this an urban legend that began on the cinema screen with films like Jaws?**

Everyone knows that sharks have an incredible sense of smell – Blowfish hypothesises about how this myth may have started and **breaks down the sharks' anatomy** to reveal the incredible **science behind their super senses**.

He then shows some incredible footage of **fresh fish meat being thrown into a shark tank** to demonstrate their **amazing sense of smell in action** - they know straight away when the scent hits the water!

But can these aquatic bloodhounds really detect a drop of human blood in a large pool of water, or a mile away in the ocean, as the popular myth suggests?



To find out, Blowfish carries out a series of calculations, to ensure the stunt will be scientifically accurate, before heading to an area of wasteland where he **erects a swimming pool** equipped with a machine that **produces ocean currents** when switched on.

He rigs a **green light** at one end of the pool and in the water below it he fixes a **'robo shark nose'** fitted with senses to mimic a real shark nose. At the other end of the pool he places a drop of a red chemical - to **mimic human blood**, and waits to see if the drop of 'blood' will be detected by the 'robo shark nose', if it does the green light will light up.

The green light doesn't light up, the 'robo shark nose' hasn't detected the blood drop - it looks as though this myth has been well and truly busted...

However, Blowfish then **repeats the experiment**, this time he **switches on the ocean current machine**, and it doesn't take long before the green light lights up – **'robo shark nose' detects the drop of blood.**

Blowfish reveals that the drop of blood, mixed with the current in the water, was carried towards the other end of the pool causing the green light to light up when the diluted blood reached the 'robo shark nose'.

Blowfish may have busted this popular myth but he was also able to demonstrate an intriguing slither of truth behind it!

HOW DO MANTIS SHRIMPS KILL WITH A SINGLE DEADLY PUNCH?

Blowfish has heard that the **mantis shrimp** packs the **most powerful punch** in the animal kingdom – **could this be true?**

Blowfish shares some incredible, slow-motion video footage that shows that when this small (8 - 10 inches long), aggressive marine crustacean strikes, it **accelerates its forelimbs at speeds similar to a bullet leaving a gun**. This phenomenal acceleration actually causes super cavitation in the water around the shrimp's appendage, which not only produces light, but also causes the water to boil.

Intrigued by this mystifying ability, Blowfish devises a series of **scientifically scaled-up stunts** to reveal the **biological mechanisms** behind the mantis shrimp's phenomenal **'super powers'**.

First, he uses a **.22 calibre bullet** to **demonstrate the 'force'** of the shrimp's punch to show what kind of damage it can do. He fires at a number of different objects - including large sea shells, animal bone and even a slab of fresh meat – before assessing the devastation.

Next, Blowfish sets out to **demonstrate the biological mechanisms** behind the mantis shrimp's **'power punch'**. He does this by constructing a **rope and pulley system**, together with **a bowling ball** to mimic the shrimp's claw, and an **HGV leaf spring** to mimic the mechanism that the mantis shrimp uses to store energy, before releasing it and striking forward with its claw. He then uses his **'mechanical claw'** to punch through various barriers, such as a pane of glass or a brick wall. **THE RESULTS ARE TRULY REVEALING.**





HOW DO HAGFISH ASPHYXIATE FISH AND SHARKS WITH CLOUDS OF SLIME?

This slimy, alien eel-like sea creature is the stuff of nightmares! Blowfish shares a video clip that recently went viral – it shows a car covered in what turned out to be Hagfish slime. **But is it for real?**

He's heard stories that this bizarre, eel-like critter has the **ability to asphyxiate the fish and sharks** foolish enough to attack it by **clogging up their gills** with massive releases of goo. **But this is no simple snot.** It's a deceptively complex substance that could one day gift us the 'super material' of our dreams.

To **unravel the defensive mechanism** of the Hagfish, and to show just how slimy it really is, Blowfish mixes up a chemical that **biologically mimics the slime** produced by the monster fish.

He then attaches a large piece of **mesh** – to **mimic the gills of a fish or shark** – to two wooden posts and fires a water hose into it; the water passes easily through the mesh.

Next, he fills a large **'super soaker' water pistol** with the **homemade hagfish slime** and shoots it into the mesh. This time it quickly becomes clogged up – mimicking what happens when the hagfish shoots out its sticky strands of slime at a fish or a shark, leaving it hacking and writhing to clear the goo! **The truth behind this ocean creature's freakish behaviour is STRANGER THAN FICTION!**

FURTHER EXAMPLES OF OCEAN MYSTERIES

DO GREAT WHITE SHARKS REALLY HAVE THE MOST POWERFUL ANIMAL BITE ON EARTH LIKE THE MOVIES SUGGEST?

CAN GIANT SQUID REALLY SNATCH PREY UP TO 33 FEET AWAY?

CAN BLACK MARLIN SWIM AT SPEEDS OF 110 KM/H (68 MPH), MAKING THEM THE FASTEST FISH IN THE WORLD?

DO DOLPHINS HAVE THE BEST HEARING IN THE WORLD?

HOW DO EELS COMMUNICATE WITH ELECTRICITY?

IS THE BLUE WHALE'S CALL REALLY THE LOUDEST OF ANY ANIMAL ON EARTH?

HOW DO CUTTLE FISH CHANGE COLOUR?

IS IT PHYSICALLY POSSIBLE FOR A SPERM WHALE TO SWALLOW A HUMAN WHOLE?

IS THERE A LIMIT ON THE NUMBER OF TIMES A PUFFER FISH CAN INFLATE?

Tom Hird is a British author, dive master, wildlife expert and marine biologist, with television hosting experience. He has a huge passion for the ocean and an encyclopaedic knowledge about marine life.

Diving since the age of 13, Tom has been exploring the world's oceans for more than 18 years, working directly with a variety of fascinating animals - from sharks and manta rays to pistol shrimps and octopuses and everything in between!

His book *Oceanopedia: 291 Extraordinary Things You Didn't Know About The Sea* recently became an Amazon best seller and has now been translated into different languages for a global audience.

Tom's hosting style is both entertaining and engaging. When talking about the ocean and marine animals he applies his boundless enthusiasm to give viewers a smorgasbord of bite-sized oceanic and fishy facts, and his 'relaxed' turn of phrase makes 'Planet Wet' (as Blowfish calls it) truly accessible to everybody.



[Intro To Blowfish Video](#) - [click here to play](#)

OFF

THE FENCE



ACADEMY AWARD



BAFTA



EMMY



ROYAL TELEVISION



GREEN SCREEN



GOLD PANDA



JACKSON HOLE

Off the Fence Productions is an award-winning producer of factual television and theatrical documentaries.

We have created more than 500 hours of television content for a wide range of international broadcasters including History Channel, MTV, BBC, Channel 4, Discovery, MSNBC, PBS, Netflix, National Geographic, A&E, Smithsonian Channel, The Weather Channel, ZDF, Arte, and France Televisions.

The creative team have been recognised by more than 80 awards, including Royal Television Society, Emmy, Golden Panda and Grand Teton.

Our Netflix film 'My Octopus Teacher' recently won an Academy Award and a BAFTA for Best Documentary.