

Virtual Reality Series

# Nature & Environment



[www.xrlibraries.com](http://www.xrlibraries.com)

931 C. Street, Novato, CA 94949



# Exploring

## Nature & Environment

---

It is a big world out there, and Virtual Reality is the perfect medium to explore it with. Dive into vibrant coral reefs teeming with fish and manta rays and with **Immerse** and **Valen's Reef**. Journey to the icy white polar regions with **Earth 360**, and then to the African savannah to see some majestic animals up close in **Africa's Big 5**. Or perhaps take a trip to the lush jungles of Borneo to see one of our closest relatives, the orangutans, in **Ecosphere**. If you've wondered what the job of a wildlife ranger trying to combat poaching looks like, watch **The Protectors**. These VR titles help to not only experience remote and spectacular places in the world but to gain knowledge and inspiration to protect our precious environment.

## Access Content

---

### Download Apps

Go to the device's App Store and download the following free Apps:



Creating an [Environment & Nature](#) themed program for libraries is easy with our resources. The following section has a curated list of Titles profiles along with user reviews. Other resources include:

- Steps to designing your program - Appendix A
- Setting up headset for easy access to content - Appendix B
- Video guides and more



# Ecosphere

Producer: PHORIA, Silverback Films, WWF | App: Ecosphere | Duration: 5 - 7 mins  
Genre: Nature / Documentary | Platforms Supported: Oculus Go, Oculus Quest



## OVERVIEW

**E***cosphere* is a 'virtual safari' that takes viewers to some of the wildest places on the planet. This series of cinematic videos takes viewers to visit three locations - the ancient rain forests of Borneo (Malaysia), the rich savannahs of Kenya and the vibrant coral reefs of Raja Ampat (Indonesia). At each location, there are a series of experiences that lets viewers get close encounters with wildlife, including elephants, orangutans and manta rays and meet the people who work to protect these animals and their habitats.

The immersive, 3D format gives viewers the opportunity to feel like they're standing next to wildlife, and within its habitat. The series highlight the efforts of indigenous and community-led efforts to create space for humanity and wildlife to thrive together. The series is filmed in 180-degree capture which, unlike 360-degree VR that lets viewer look around in all directions, only has a 180-degree view akin to sitting directly in front of a 3D IMAX screen. These immersive experiences aim to bring people closer to nature to appreciate its beauty while shining positive light on the harmonious relationship between humanity and nature.

### **How To View:**

- *In the headset, go to Apps*
- *Open the App 'Ecosphere'*
- *Select location to 'visit'*



# TITLE REVIEW



## ***Borneo - Jungles / Malaysia***

This series begins flying over jungles whose lush canopies cover your screen from floor to ceiling. While only half of the world's jungles remain, the 130-million-year-old forest ecosystems are a valuable carbon sink and are treasure troves of biological diversity.

We learn from a local palm oil farmer that many of Borneo's forests have been cut down and converted into palm oil plantations. Deforestation has resulted in the loss of more than 100,000 Orangutans. We visit a jungle animal sanctuary where Orangutans swing playfully from rope swings to the crowns of massive trees, and graze fruit and termites from the insides of hollowed branches.

We meet people who are working to revive the wildlife and forests of Borneo. As we glide through jungle rivers and into forests, we discover a newfound value for unseen wonders. Wildlife, though threatened by human activity, is revealed to us through the lens of people who care.

## **by Maxine Flasher-Duzgunes**

### ***Kenya - Grassland / Africa***

This series is set in the East African Savannah, where elephant populations have significantly declined due to poaching and human population expansion. Today a mere 350,000 elephants survive, compared to over 1 million in 1981.

We learn the presence of nature reserves is invaluable when people live in proximity to wildlife. We're taken into the East African Animal Sanctuary, where baby elephants whose mothers who were killed are cared for by local conservationists.

After a series of wide pans over the vast dry plain peppered with small townships, elephants often traipse underneath the camera as if you were hovering right above them. Up close, baby elephants splash water on each other in a watering hole, and at one point offer their trunks directly at the camera as if to welcome you into their world.

### ***Baja Ampat - Oceans / Indonesia***

This series is set in the Coral Triangle, where the Indian and Pacific Oceans meet. Here, 75% of the world's coral species is found - some of which can be found nowhere else - but has been deeply threatened by unsustainable fishing practices.

One of the videos begins with an immersive view of a rainbow reef, schools of fish intermingling, with an occasional manta ray soaring through the vibrant crowds. A local fisherman details how decades of over-fishing have decimated fish populations.

The creation of a private marine reserve in "no take zones" has successfully protected animals from overfishing, and the coral reefs. Overhead shots of the islands reveal the depth and expanse of the reefs that are otherwise invisible to anyone on land.







# The Overview Effect

Producer: Targo | App: Oculus TV | Duration: 6.5 mins  
Genre: Nature / Documentary | Platforms Supported: Oculus Go, Oculus Quest



## OVERVIEW

*The Overview Effect* is an immersive video that allows viewers to experience Earth from space. Hovering above Earth from space, it gives viewers the opportunity to experience the 'Overview Effect' which is the cognitive shift in awareness reported by the astronauts who view the Earth from space. The experience is narrated by French astronaut Jean-François Clervoy, who describes what the 'Overview Effect' means for him and how this experience changes his perspective about the world. Viewers are transported into Low Earth Orbit to observe the Earth from a vantage point that only astronauts get to see. The experience also takes audiences to the surface of the moon to see 'Earthrise' – the iconic photograph of Earth taken by astronauts aboard the Apollo 8 mission. Viewers can also see a famous astronomical observatory at the top of the Pyrenees Mountains in France before flying off into space.

### **How To View:**

- *In the headset, go to Apps*
- *Open the Oculus TV App*
- *In the Oculus TV menu, click on 'Saved' videos*
- *Look for the 'The Overview Effect'*



# TITLE REVIEW



by Tiani Jadulang

**T**he *Overview Effect: A Tale from an Astronaut* is an immersive experience that transports viewers into space to see the Earth from an astronaut's point of view. The audience starts out looking at 'Earthrise', the iconic photograph of the Earth from the orbit of the moon, taken by astronauts aboard the Apollo 8 mission. The viewer is then transported to the surface of the moon to see this view for themselves, as if they were astronauts on the Apollo 8 mission! We then meet the narrator, French astronaut Jean-François Clervoy, at an astronomical observatory atop the Pyrenees Mountains in France. He talks about his journey as an astronaut and describes the phenomenon many astronauts experience when they travel to outer space -

**the 'Overview Effect'. This is known as an intense and emotional feeling reported by astronauts who gaze at the Earth from space.**

On seeing the whole planet, a pale blue dot in the blackness of space, they realize the fragility and interconnectedness of the planet. Many astronauts are also struck by the thinness of the atmosphere, and the stunning beauty of the planet, and feel compelled to protect it when they return.

We are then taken on a tour replicating a spaceship ride in space, circling high above the Earth. Hovering

above the Earth, we see the sparkling night sky and the continents and oceans. The images and environment shown in this experience leave one speechless, and the perspective of Earth from space is spectacular.

This experience made me feel like I was actually on a tour on a spaceship around Earth in space. It was touching when Clervoy said about his experience "The scene was so extraordinary and fascinating that you are moved, moved to the point that you cry."

After experiencing the Earth from space in a similar way to astronauts, I can see why they call it an 'Overview Effect.' This experience did make me realize that our planet is actually small and beautiful and that the atmosphere is so thin and fragile.

**Astronaut Clervoy says that Earth is our own spaceship, and we are all crew members and that it is our job to protect our planet.**

The extremely clear virtual experience was breathtaking and exhilarating throughout the entire duration of the journey. If this was a 2D experience, I do not think that I would have felt as moved as I currently am by this experience. This is an excellent, eye-opening journey into space that I would recommend everyone to go on.

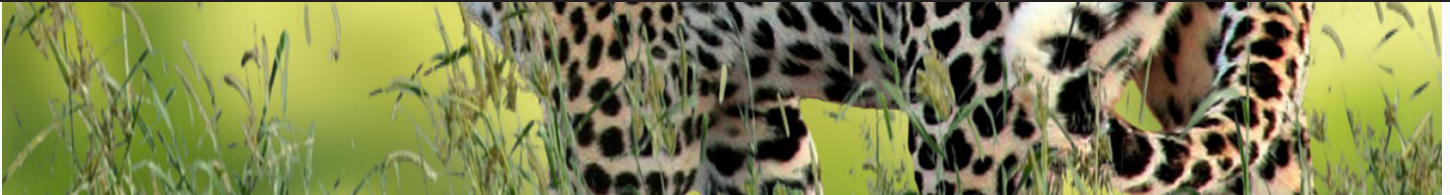
## DISCUSSION TOPICS

- What would you want to observe if you could be transported into space and hover above Earth?
- Do you think you would gain a new perspective about life on Earth and what would you tell people back on Earth?





# Africa's Big 5



Producer: Habitat XR | App: Oculus TV | Duration: 8 mins  
Genre: Nature Film | Platforms Supported: Oculus Go, Oculus Quest



## OVERVIEW

**A**frica's Big 5 is an exciting expedition to South Africa's savanna woodlands to meet Africa's famous Big Five animals—lions, leopards, rhinos, elephants and buffalos. So named for being the most dangerous 5 mammals on the continent, this guided immersive experience bring face to face with these majestic animals. Not everyone can travel to Africa to explore the magic of African landscapes and animals but through the power of virtual reality, now a virtual safari is possible. The experience brings viewers up close and personal with these iconic animals all the while learning fascinating insights into their lives in the wild.

### **How To View:**

- *In the headset, go to Apps*
- *Open the Oculus TV App*
- *In the Oculus TV menu, click on 'Saved' videos*
- *Look for 'Africa's Big 5'*



# TITLE REVIEW



by Tiani Jadulang

**T**he virtual reality experience Africa's Big 5 is an exciting "virtual safari" to meet Africa's famous "Big 5" wild animals. Viewers get a rare glimpse into the lives of the "Big 5", so named as they are considered to be the five most dangerous animals in the African savannah. These consist of lions, buffalos, white rhinoceros, elephants, and leopards. The experience is set in South Africa and a narrator takes us to meet each of these animals in turn. Viewers begin the journey viewing Cape buffalos who, despite seeming calm and docile, have lethal, curved horns that they are not afraid to use when defending themselves.

This experience was very informative and while coming close to these magnificent animals, the narrator presents fascinating facts about them.

An interesting fact that was shared was that the white rhinos pictured above are named as such because they are not white in color but 'weit' in the local language means 'wide' to describe their wide, flat lips and that their horns are made from keratin, the same material as our fingernails. The information that the narrator presents about the animals are not common knowledge which makes the experience quite interesting.

The experience was quite clear, no shakiness or blurry images when looking around. The whole experience was very smooth and quite peaceful. The animals in the

with the camera. I felt as if I was actually on a safari in Africa and could reach out and touch the animals!

***After the experience I felt a connection to the animals that I did not have before, and I now have a better picture of the African landscape than I would have with a book or a video.***

Overall, this experience is a fascinating look into the world of some iconic animals, is suitable for all ages, and I would highly recommend it.



## DISCUSSION TOPICS

- Have you ever travelled to a wilderness area or have chance to view wild animals in their natural habitat?
- Does this experience make you more or less inclined to learn more about these animals?





# Hydrous: Immerse

Producer: The Hydrous | App: Oculus TV | Duration: 9 mins  
Genre: Nature / Documentary | Platforms Supported: Oculus Go, Oculus Quest, HTC Vive



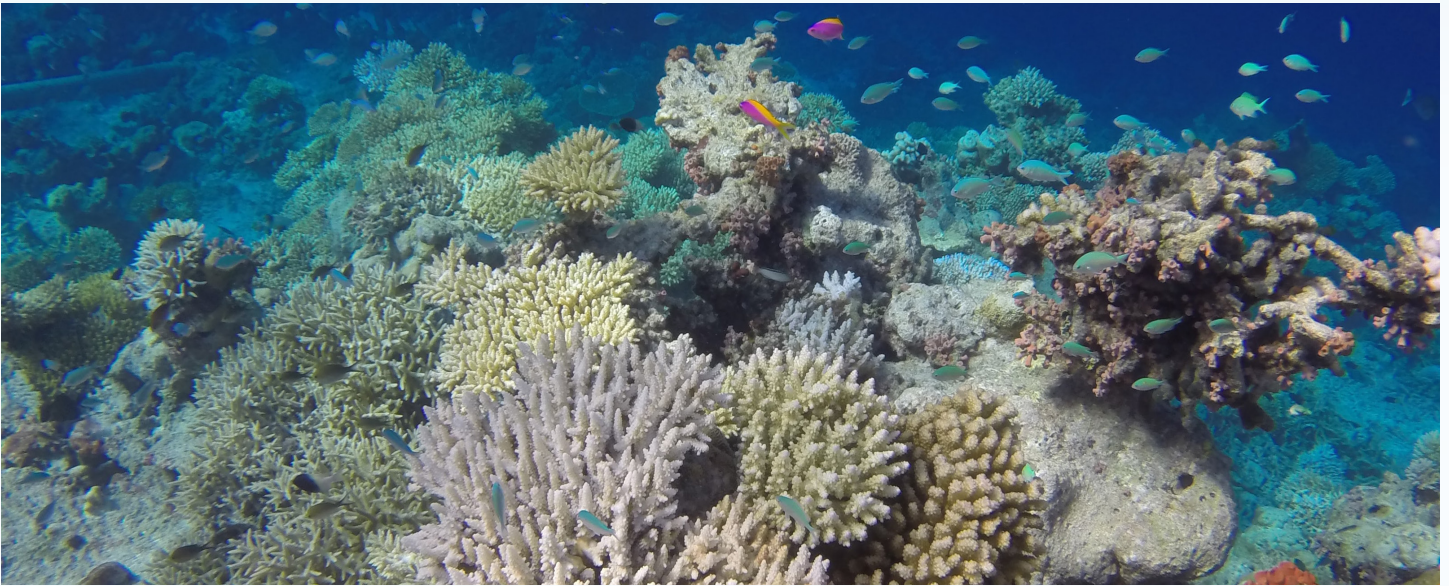
## OVERVIEW

**I**mmerse is 360/VR film that takes viewers on a virtual dive into the coral reefs of Palau with marine biologist Dr. Erika Woolsey as your guide. Swim with manta rays, sea turtles, and sharks while you explore beautiful and threatened coral ecosystems and hear from marine scientists and young ocean advocates. The ocean is over exploited, under protected, and out of mind. Too few people have the opportunity to explore marine environments such as coral reefs, which are rapidly degrading. This experience is therefore designed to take the viewer on an immersive, underwater journey to generate awareness, scientific understanding, and empowerment to protect our beautiful and threatened ocean.

### **How To View:**

- Turn on the headset - Go to Apps
- Open the Oculus TV App
- In the Oculus TV menu, click on 'Saved' videos
- Look for the 'Hydrous Immerse' video

# TITLE REVIEW



by Tiani Jadulang

*Immerse*, a virtual dive into the depths of the ocean to explore coral reefs, was both a breathtaking and eye-opening experience. Narrated by marine biologist Dr. Erika Woolsey, participants are introduced to an amazing variety of coral reefs and the marine life they support. The film also shows how climate change is adversely affecting the ocean and especially coral reefs. The VR experience takes ‘divers’ among coral reefs in Palau as we hear from a number of marine biologists. The narrator talks about the ocean as “a magical, complex and beautiful place” and the importance of a healthy ocean to our planet. We are shown the amazing diversity of life that coral reefs support as we see colorful shoals of fish, sea turtles and sharks. Another scientist tells us why biodiversity is important and that “we depend on it for clean water and air, for food and medicine, and for the overall resilience of our planet.”

A particularly joyful point in the film is when we swim among a group of graceful Manta Rays and watch them as they ‘fly’ through the water and even do back-flips!

The narrator informs us that corals are actually animals that build a skeleton around themselves and that colonies of coral form coral reefs. The film explains the process of coral bleaching through animations. Coral bleaching is what happens when higher than average ocean temperatures stress the corals and cause them to expel their symbiotic

algae. Since the algae provide the coral animals food, their absence causes the corals to turn white and die.

A distressing fact we are told is that living coral cover worldwide has decreased by about 50% in the last 50 years. An event that the VR film touches upon is the Global Bleaching Event, that occurred between 2015 through 2017 and its effects on the coral reefs. This is an event that I was unaware of and I believe many are. The VR experience overall was quite emotional, especially when discussing the decline of biodiversity and the effects of climate change.

The film is peppered with interesting facts and information boxes pop up throughout. The film tries to show viewers the beauty and fragility of the ocean and also warn about the dangers facing it and in specific coral reefs. We are shown how declining coral reefs not only adversely impact island nations such as Palau but the whole world in many different ways.

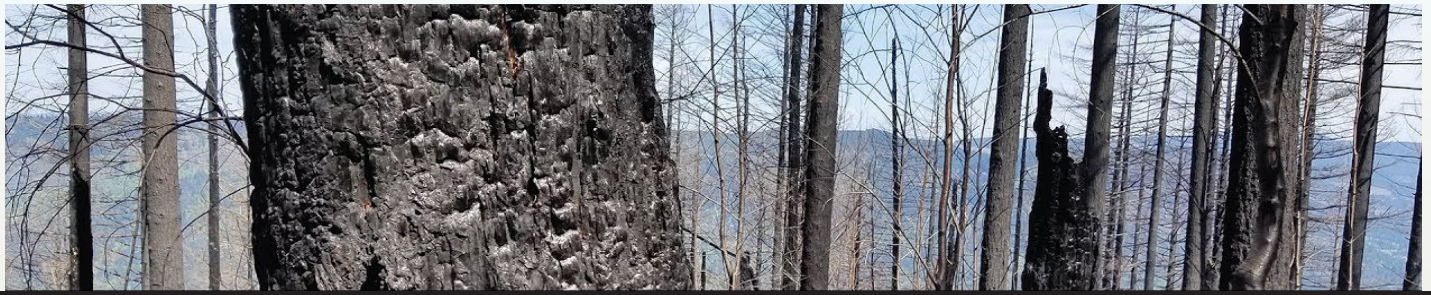
***In essence, the film tries to bring the wonders of the ocean to viewers, because as the narrator says “what we don’t see we can’t connect with, so we need to look.”***

And through Virtual Reality we are able to get a crystal-clear, immersive look. The film made me sympathize with the subject matter and gain a deeper understanding about the ocean and its coral reefs.

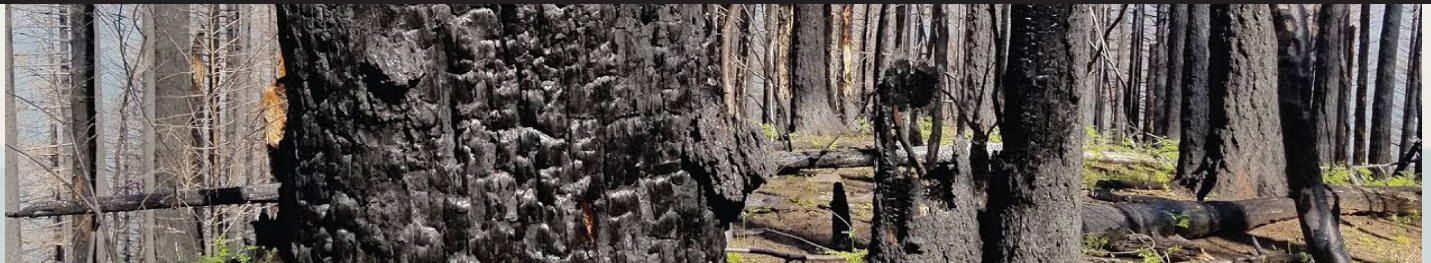
## DISCUSSION TOPICS

- What are the threats to coral reefs according to the film?
- After watching the VR film, are you more interested than before in exploring the ocean?





# The Fire in Our Backyard



Producer: 360 Labs | App: Oculus TV | Duration: 9 mins  
Genre: Short-Documentary | Platforms Supported: Oculus Go, Oculus Quest



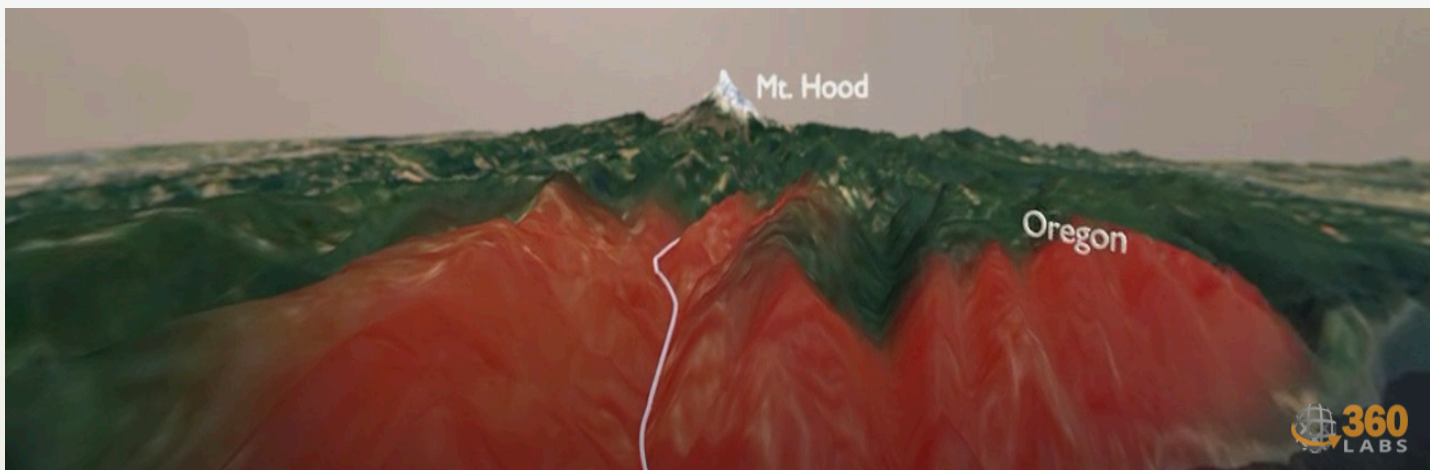
## OVERVIEW

**T**he Columbia River Gorge is one of the Pacific Northwest's most amazing natural wonders. Many in the area spend summers backpacking, camping, hiking, fishing, paddling and kiteboarding in the lush, green landscapes. The Fire in our Backyard examines the consequences of the Eagle Creek Fire on one of Oregon's most cherished landmarks. When a destructive wildfire was started near Trailhead on Labor Day weekend of 2017, it had a lasting impact on the forest and communities that live there. Nearly 50,000 acres in the Gorge were consumed by fire due to the careless actions of an individual. Many people were forced to evacuate their homes and businesses and some lost their homes. The fire ultimately led to an estimated \$36 million in damages. More important than the monetary value, a cherished landscape was forever changed. The film also shows the incredible efforts of search and rescue teams, the Forest Service, and volunteers to combat the fire and restore the Gorge.

### *How To View:*

- *In the headset, go to Apps*
- *Open the Oculus TV App*
- *In the Oculus TV menu, click on 'Saved' videos*
- *Look for the 'The Fire in Our Backyard'*

# TITLE REVIEW



by Kylie Lawrence

The immersive experience begins by taking the viewer to a gorgeous lookout spot at the top of Wind Mountain in the Columbia River Gorge, one of the most beautiful and iconic landscapes in the Pacific Northwest. Stunning clips of the lush forest are shown, and the viewer is able to turn a full 360 degrees to see the whole forest. Calming music plays as cascading waterfalls fill the view. We are told that the Columbia River Gorge is home to the greatest concentration of waterfalls in North America.

The narrator is Ray Livingston, a Search and Rescue worker. He describes his love for the forest: “The Gorge is my sanctuary and it has a special place in my heart,” he says. “And, I appreciate it in a whole new way after the fire.”

Suddenly, the music becomes intense and somber, and the mood transitions to a sad one. Viewers are told about the Eagle Creek Fire that ravaged the area in September 2017. It was started by a teenager playing with fireworks. The viewer is shown different clips of the burnt down forest. A 3D map shows the location of the fire and how it expanded in size, fueled by winds and high temperatures. The sky was blanketed in smoke. In total, the Eagle Creek fire burnt over 48,000 acres of forest, before it was contained over two months later.

Members of the Search and Rescue team describe the events of that fateful day. The fire erupted on Labor Day weekend,

when there were many people out on the trails enjoying the warm weather. No one was prepared for a disaster to strike.

***“With no survival supplies on hand, people had to hike 14 miles to the nearest lake and spend the night in the freezing cold before they could be rescued.”***

Viewers are then introduced to some of the people who were affected by the fire. We visit Stephanie, who runs an educational farm for children and had to evacuate her animals. Animals frolic around as she describes how she struggled to get all her animals out of harm’s way.

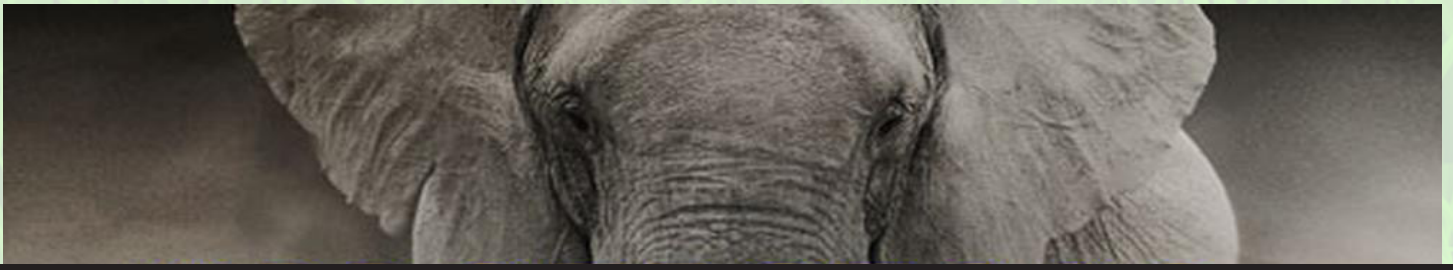
Next, we meet the Public Information Officer of a nearby fish hatchery. He explains how they had to move millions of fish to a different location, because the ash was harmful to the fish. He said they could feel the heat of the fire when it came over the hill near the hatchery. Viewers are taken underwater where one gets the sense that one is swimming with hundreds of fish.

Local officials describe how businesses were forced to close for weeks and the lost revenue hurt the local economy. Many homes were lost. However, the film ends on a hopeful note, as we see Park workers rebuilding the trails and clearing debris. The narrator assures viewers that the Gorge will return “if not to the same majesty, then to a new form of it, equally as beautiful.” Viewers are informed that they can help the restoration efforts by supporting the National Forest Foundation.

## DISCUSSION TOPICS

- The Eagle Creek Fire was started by a careless act of an individual. Many wildfires are started by humans. In fact, human-sparked wildfires accounted for 84% of all wildfires in the United States and 97% of all those that threaten homes according to a recent study. What measures can local governments take to prevent human-started wildfires from threatening their communities?
- What are some of the natural landscapes in your region that may be threatened by human or natural causes?





# The Protectors: Walk in the Ranger's Shoes



Producer: National Geographic, Here Be Dragons | App: Within | Duration: 10 mins  
Genre: Nature / Documentary | Platforms Supported: Oculus Go, Oculus Quest



## OVERVIEW

**T**his immersive mini-documentary takes viewers to the front lines of the war against wildlife poaching alongside park rangers at Garamba National Park in the Democratic Republic of Congo. The film unearths the reality of the poaching crisis that is decimating elephants in Africa and the heroic park rangers that risk their lives to protect these majestic creatures from extinction. The viewer goes on patrol with rangers as they prepare to defend against militant groups that kill thousands of elephants and many rangers every year. The spotlight is on the rangers, their daily struggles, and their humanity and bravery in the face of extreme danger.

### ***How To View:***

- *In the headset, go to Apps*
- *Open the App 'Within'*
- *In the Within App, click on the Documentary tab*
- *Find 'The Protectors'*



# TITLE REVIEW



by **Carissa Lee**

**F**rom the beginning, the ambiance of this experience is set with dramatic music and the cry of an elephant, foreshadowing the presence of danger for *The Protectors* and the protected. A herd of elephants seem to float as they traverse a vast green plain underneath them, juxtaposed with a group of armed rangers nearing an elephant in distress. Within the first minute of this video, multiple shots echo and the rangers brace themselves, crouching among the tall grass, aware of danger nearby.

National Geographic created this film to spread awareness of the problem of poaching of African elephants and their protectors, the brave rangers of Garamba National Park. Filmed like a documentary, this VR experience presents viewers with the opportunity to gain insight into the life and sometimes death of the 130 rangers of Garamba National Park. Garamba National Park straddles the Democratic Republic of the Congo (DROC) and borders South Sudan, making it vulnerable to raids by armed pastoralists, Lord's Resistance Army rebels, South Sudanese rebels, and local DROC poachers. Tasked with protecting 5,200 square kilometers of land, Garamba's Rangers are the last line of defense between 1300 elephants and armed, incentivized poachers attacking from all borders.

***The Protectors video uncovers the heartbreaking reality that Garamba National Park experiences, detailing the loss, pain, hardships, and dedication of dozens of courageous men and women.***

In uncovering the details of the high-risk day-to-day life of Garamba's Rangers, what is astounding to learn is the depth of connection to the elephants and sense of purpose that they experience and communicate to viewers.

Ranger Yoma, a seasoned ranger with PTSD explains the dilemma that he and his coworkers face — to save and protect life they must also take life. Often encountering armed poachers, rangers must shoot in self-defense to protect the elephants, their own lives, and the safety and wellbeing of their families. An older ranger, Tomasi, who has served for over 30 years, recounts seeing 22 dead elephants in a single day. Rangers like Yoma and Tomasi dedicate their heart, body, mind, and soul to keep a watchful eye over Africa's endangered elephants, and many rangers have lost their lives in doing so. By the end of the video one feels personally compelled to take action or begin problem-solving, although there is no clear solution to the plight of elephants and the rangers.

## DISCUSSION TOPICS

---

- Before watching the film, were you aware about the extent of the poaching problem and that hundreds of park rangers have lost their lives in Africa.
- Discuss what could be done by the international community to aid the rangers in their fight against poaching.





# Earth 360: The Call of Science



Producer: NASA Jet Propulsion Lab | App: Oculus TV | Duration: 8.5 mins  
Genre: Science / Documentary | Platforms Supported: Oculus Go, Oculus Quest



## OVERVIEW

**T**his immersive experience allows viewers to join NASA Earth scientists for a 360-degree view of the planet, as they study ice in Greenland and coral reefs in Hawaii. Participants can stand with scientists on Arctic ice, fly above the ice sheet, glaciers and sea ice as part of Operation IceBridge, then head to Hawaii as scientists with NASA's CORAL mission dive into Kaneohe Bay.

"Life as an Earth scientist means understanding the planet we live on and, especially in the context of climate change, understanding where that planet is headed," said Joe MacGregor, Operation IceBridge project scientist. Michelle Gierach, CORAL project scientist, agrees. "Clearly, the ocean, the atmosphere, the land, the cryosphere, we're all connected as an Earth system; we're all impacting one another," she said. "We really need to have a better understanding of that inner working."

### ***How To View:***

- *In the headset, go to Apps*
- *Open the Oculus TV App*
- *In the Oculus TV menu, click on 'Saved' videos*
- *Look for the 'Earth 360'*



# TITLE REVIEW



by Kylie Lawrence

**A**s the immersive experience starts viewers find themselves on a snowmobile speeding across the vast Arctic tundra. Turn in any direction and one can see a white, desolate, but stunning landscape. Joe Macgregor, a project scientist for Operation addresses viewers,

***“I see this beautiful landscape that is covered in snow. And I realize that it won’t always be that way for the rest of my lifetime.”***

Macgregor discusses his work as an Earth scientist for NASA, studying glaciers in Greenland and Antarctica, how they have changed in the past, and how they will change in the future. The viewer is then transported to a plane, soaring above the ice. Macgregor explains that the focus of Operation Icebridge is to determine what is going to happen to the two remaining large ice sheets in Greenland and Antarctica in the coming centuries. “Are they going to retreat dramatically? Are they going to collapse? Or are they going to remain relatively unaffected by a changing climate?” He explains why this work is so important for the future of human civilization, and he calls for a greater focus on exploring and learning about the polar regions.

The screen dissipates, and suddenly, the user is underwater. Scientist Michelle Gierach introduces the Coral Mission, a three-year investigation to assess the impacts of climate change on coral reefs. The viewer joins the scientists as

they scuba dive to explore coral reefs and collect data.

Gierach explains how little humans truly know about coral reefs – having studied less than 1% of the world’s coral reefs. Understanding how these coral reefs work and what happens within the environment will allow us to take better care of them and reduce the threat climate change poses to them. She opens up about her feelings as a soon-to-be parent, and how important it is to her that her child is able to experience coral reefs and the ecosystems that she knows and loves.

As the viewer looks out upon oceans and glacial ice, Macgregor talks about the thousands of scientists who have dedicated their life to understanding the Earth, in hopes that we can preserve the ecosystems we are dependent on.

The videos taken for this experience are extremely high-quality and beautiful. The user soars above fields of shimmering ice in Greenland and swims with exotic fish at the coral reefs in Hawaii. The soundtrack used makes the user feel as though they are actually in the environment that is being portrayed on the screen, and it is a very realistic experience.

***Viewers are able to gain an understanding of the work that scientists are doing to study and protect our precious ecosystems. Overall, the virtual reality experience was educational, inspiring, and fascinating.***

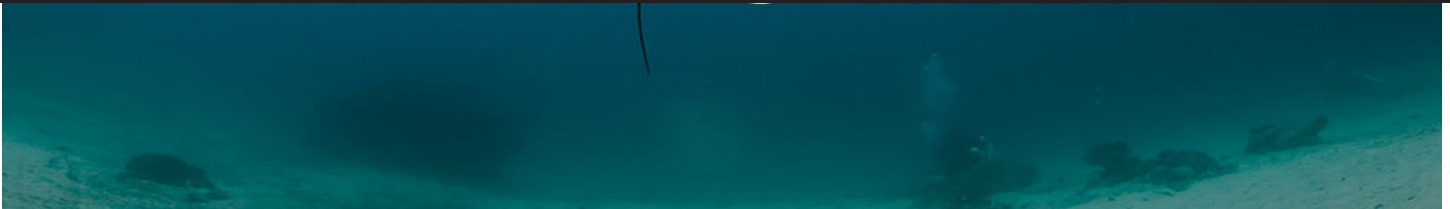
## DISCUSSION TOPICS

---

- Why is studying the polar regions and coral reefs important?
- Does the film successfully communicate the interconnected of Earth’s systems i.e. how even changes in remote regions can have an impact on the whole planet?



# Valen's Reef



Producer: Conservation International | App: Within | Duration: 8 mins  
Genre: Nature / Documentary | Platforms Supported: Oculus Go, Oculus Quest



## OVERVIEW

**V**alen's Reef is an immersive film that shares the wonders of one of the Earth's most beautiful reefs through the eyes of West Papuan fisherman-turned-conservationist Ronald Mambrasar and his 8-year-old son, Valen. For millennia, the oceans near Raja Ampat Islands of Indonesia were teeming with life – home to more species of fish than the entire Great Barrier Reef. This paradise was almost lost, however, after decades of commercial over-fishing, poaching and damaging practices like blast fishing.

The film shows how the island's inhabitants reclaimed their ancestral waters, creating one of the world's most successful community-based marine conservation projects. Now, coral is recovering and fish populations have rebounded; sharks, whales and rays have returned; and ecotourism has flourished — all while local people's access to education, food and livelihoods have improved.

### **How To View:**

- *In the headset, go to Apps*
- *Open the App 'Within'*
- *In the Within app, click on the Documentary tab*
- *Find 'Valen's Reef'*



# TITLE REVIEW



by **Carissa Lee**

**T**his beautiful experience takes viewers to the remote islands off Indonesia as Ronald Mambrasar, a local fisherman turned conservationist, and his 8 year old son show viewers around their island world. Viewers journey with this father son duo into the coral reefs and marine life of Bird's Head Seascape in West Papua, Indonesia.

***Virtual reality allows viewers to marvel at the beauty of the world and also inspires people to see the importance of marine conservation efforts.***

Home to arguably the most biodiverse reef in the world, Bird's Head Seascape is a remarkable sight, with over 75% of the world's coral species and more species of fish than the Great Barrier Reef.

This gem in the Indian Ocean was almost completely destroyed over a decade ago. Poachers, overfishing, and unsustainable exploitation damaged not only marine habitats and reduced biodiversity, but brought poverty and suffering to local people reliant upon fish populations for their livelihood. Ron shares his experiences in seeing the transformation that has occurred at Bird's Head Seascape both on land and underwater, and shares what it means to protect the future for his son Valen and younger generations.

With support from The Tiffany & Co. Foundation, Here Be Dragons collaborated with Conservation International (CI) to create this virtual experience. "Valen's Reef" is a story inspired by the abounding success of the Bird's Head Seascape Initiative, with poaching down 90%, ecotourism thriving, and marine conservation paving a way forward. Community-based conservation efforts have resulted in positive changes to the ecosystem, flourishing fish populations, healthy coral, a rebound in biodiversity, and changes in the local community, who have benefited from improved livelihood and living conditions.

***This film showcases the potential versatility of VR, as a creative medium for storytelling and tool for activism. The immersive cinematic experience it can provide compels viewers to realize that marine conservation is an important necessity of the present and creates hope for a more sustainable future.***

Valen's Reef is available to view with Google headsets, Oculus devices, Samsung Gear VR, and 360 degree versions of the film online via Youtube and social media outlets. This is a highly recommended virtual reality experience. Tip: watch standing in place, but ensure to look all around!

## DISCUSSION TOPICS

- Coral reefs are known as the 'rainforests of the sea' and serve as nurseries to many species of fish. What are the threats to coral reefs?
- Virtual Reality allows anyone to 'visit' remote locations and places that are difficult to travel to. What remote location would you explore using VR?





# My Drowning Island



Producer: Biosphere VR | App: Oculus TV | Duration: 5.5 mins  
Genre: Short Documentary | Platforms Supported: Oculus Go, Oculus Quest



## OVERVIEW

**W**hat if your country was swallowed by the sea? The idyllic South Pacific island-nation of Kiribati will be submerged within decades due to climate change. One of the lowest-lying places on Earth, it is the most vulnerable places to the effects of climate change and is already facing catastrophic sea-level rise. Anote Tong the ex-president of The Republic of Kiribati, who has been nominated twice for the Nobel Peace Prize, passionately embarks upon a race against time to save his people and 4,000 years of Kiribati culture.

Even though circumstances are getting really serious, the people of Kiribati do not wish to leave their homes and become refugees. Meanwhile, Anote Tong continues to warn the world of the consequences of climate change, speaking with dignity and unwavering conviction to politicians, industrialists and schoolchildren all over the world. His message is simple: the fate of Kiribati is the fate of the world - if we fail to act.

### **How To View:**

- *In the headset, go to Apps*
- *Open the Oculus TV App*
- *In the Oculus TV menu, click on 'Saved' videos*
- *Look for 'My Drowning Island'*



# TITLE REVIEW



by Maxine Flasher-Duzgunes

**W**hat does it mean to leave your home? According to the Brookings Institution, about 20.5 million people flee their homes each year due to climate hazards, including increasing temperatures, sea-level rise, and severe weather events.

***What does it mean when your home is your dignity, when your home is your identity? As many fight changes in our climate - often literally to stay afloat - they must consider what it means to relocate, and realistically, to let go.***

*My Drowning Island* is a stereoscopic 360 experience narrated by Aote Tong, former president of the Republic of Kiribati and two-time nominee for the Nobel Peace Prize. Kiribati is one of the lowest lying islands in the South Pacific, and in recent years one of the most affected by sea-level rise. Tong takes us in his small motor boat through the shallow turquoise waters flooding the island's rocky shores. He wades through the ruins of houses that once sat atop the sand, now drowned beneath the unrelenting tides.

***Scenes of school children playing by the shore elicit a certain kind of sadness; while a child's laughter is a sign of renewal, here it is short-lived.***

Tong speaks of the locals' resilience when it comes to battling the insurmountable effects of the rising tides. He claims that in defense of their sacred homeland, many have refused to migrate to other countries and to become refugees. He has spoken to United Nations officials about the impending devastation that haunts this island, and that as it sinks, it will warn other parts of the world of a fate disrupted by the climate crisis.



## DISCUSSION TOPICS

- Is there even such a thing as a reversal to the climate crises? If so, what might it look like?
- If VR could illuminate another place on earth devastated by climate change, where would it be and how could the journey potentially be documented?



# 5 STEPS TO IMPLEMENTING A SUCCESSFUL VR PROGRAM

## Step 1: Preview Virtual Reality Experiences

A good first step in designing and implementing a VR program is to view the content for the theme you are offering. This will inform the design of the program, how best to offer it, and the resources needed to support the program.

## Step 2: Assign Staff

Designate a point person or leader to oversee the programming. At least one staff member would be needed to facilitate the VR sessions and to help participants with the equipment and navigation. It may be possible to find a member of the staff who has specific interest or knowledge about the topic. The use of volunteers is also a good solution for VR programming. Some libraries enlist teens, college students, tech savvy patrons or VR enthusiasts as volunteers. Staff members and volunteers can be trained to get them comfortable with the equipment and how to conduct the program. The XR-Learn learning portal has online Tutorials and Training videos that can be accessed to help with training.

## Step 3: Determine Schedule and Format

Your VR Program can be offered to fit your library's requirements and capabilities. It can be offered a weekly scheduled event e.g. every Saturday from 2 - 5 pm, bi-weekly or any schedule that meets your needs. Consider the target audience, staffing and space availability. It can be offered as a stand-alone program or as part of an existing scheduled VR program. Determine the duration that the program will be offered, for e.g. 1-month, 3-month or 6-month long program. Please see the Sample Program.

## Step 4: Promote the Program

Promoting the program prior to the launch will help garner participation and spark interest. Promotional material like flyers, posters, postcards, bookmarks and online posts can be designed. Posters can be posted in a visible location to inform patrons visiting the library. Another means to amplify the outreach is to partner with local environmental organizations to help get the word out. In addition, experts can be enlisted as speakers or to help lead/facilitate discussions after the VR sessions.

## Step 5: Prepare the Space and Equipment

Prepare the space for the VR program. This can be a dedicated VR space, such as a 'VR corner' or a meeting room. A basic setup can also just consist of an open, unobstructed space (minimum 6' x 6') with some seating and a table for equipment. Headsets can be prepared by downloading the required Apps and titles. A good idea is to also have a display describing the Program and showing the content being featured. Casting from the device can be set up, if desired, so that the view on the device can be displayed on a computer monitor or TV for others to see.



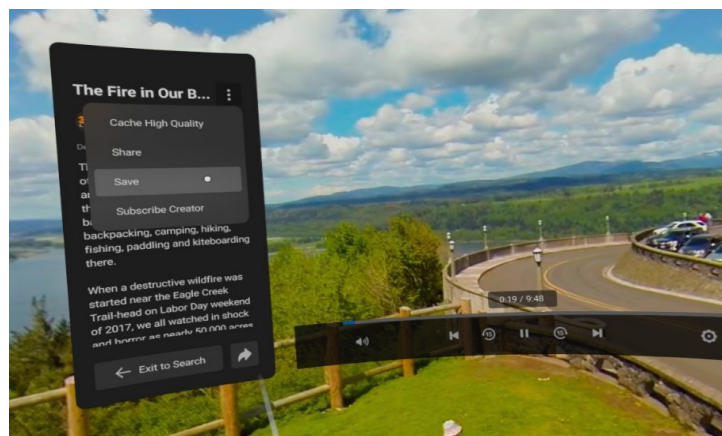
# SETTING UP YOUR HEADSET FOR EASY ACCESS TO CONTENT

Oculus TV and Apps such as Within have a wide range of immersive videos, documentaries, short films, and cinematic VR content. You can search for Titles, Creator or Genre by entering it in the Search box.

## Oculus TV

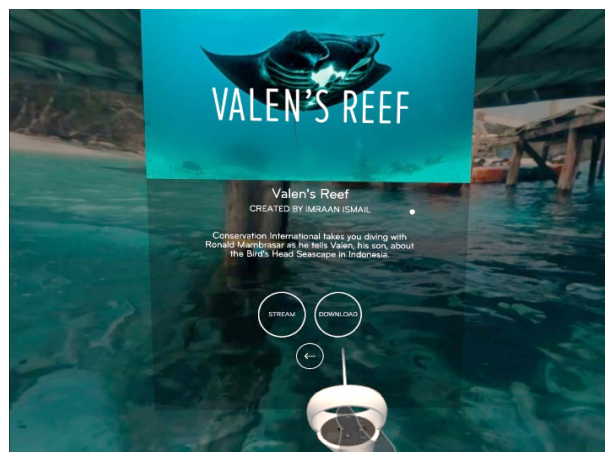
Titles on **Oculus TV** can be saved to make it easier to access them for subsequent viewing or to create a VR 'playlist'. To save titles in the Oculus TV App:

- Click on any 'letter' button on the hand controller to bring up the Title menu.
- Click on the three dots next to the title to get a menu. Click on 'Save'

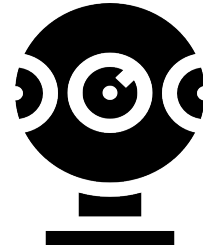


## Within App

Titles in the '**Within**' App can be saved to the 'Downloaded' part of the App to make them easier to access them for subsequent viewing. This will also allow for higher quality playback. To save titles in the Within App, click on the Title. A pop up will ask you whether you want to Download or Stream. Select Download.







## Video Links

The following videos offer important information on how to safely use virtual reality along with visual demonstrations:

### Introduction to Virtual Reality

<https://vimeo.com/554490055/9faa29b8f3>

This video is intended as an introduction to the medium of Virtual Reality for those who've never used VR before. It explains what VR is as well as instructions for the use of an untethered VR headset. This video particularly focuses on how to use a VR controller.

### How to Set up an Oculus Quest 2

<https://vimeo.com/5113493>

This video goes over how to set up a brand new, unopened Oculus Quest 2, including using the oculus app. If you've received an Oculus Quest from XR Libraries, your headset will most likely have already been set up prior to shipping. If your Quest headset has not already been set up, you will receive login credentials.

### How to Use virtual reality safely

<https://vimeo.com/502326324>

This video offers important information on how to set up to use virtual reality in a new environment, including how to prevent sun damage to the display, what a user should do if they experience simulation sickness, and other tips.

### How to clean and sanitize a headset

<https://vimeo.com/497009771>

This video offers a visual demonstration of how to sanitize a virtual reality headset. While this video focuses on the Pico Neo 2, the steps it demonstrates actually apply to all virtual reality headsets.



Contact  
George Lightfoot  
[george@xrlibraries.com](mailto:george@xrlibraries.com)

John MacLeod  
[john@xrlibraries.com](mailto:john@xrlibraries.com)

[www.xrlibraries.com](http://www.xrlibraries.com)  
[www.xr-learn.com](http://www.xr-learn.com)