

**"LOVED TO DEATH"**

Episode 05 "Great Barrier Reef"

Final Timecoded script

**INTRO:**

**001** 00:00:00:04 00:00:03:05

We all long for another time... another place

**002** 00:00:04:19 00:00:06:04

For wonder and excitement

**003** 00:00:06:17 00:00:08:18

Foreign lands and different cultures

**004** 00:00:09:21 00:00:11:21

But what happens when we go too far?

**005** 00:00:13:08 00:00:16:01

When our desire to escape becomes destructive

**006** 00:00:17:11 00:00:19:24

When we turn what we treasure most into ruin

**007** 00:00:21:17 00:00:24:09

When our love comes at the ultimate price

**EPISODE 05:**

**008** 00:00:37:06 00:00:37:23

The ocean

**009** 00:00:38:10 00:00:43:13

The largest single ecosystem on earth, taking up 70% of our world

**010** 00:00:43:24 00:00:47:16

Filled with thousands upon thousands of marine animals

**011** 00:00:48:06 00:00:50:23

Most are confined to a few small areas

**012** 00:00:52:12 00:00:53:23

Scattered across the world

**013** 00:00:54:21 00:00:57:20

But only one that is truly awe-inspiring

**014** 00:00:58:11 00:01:01:14

The largest single living organic structure

**015** 00:01:02:12 00:01:04:13

But when observing is changing

**016** 00:01:05:09 00:01:07:01

Visiting may be deadly

**017** 00:01:08:02 00:01:13:08

As we flock to dive in, we risk destroying everything we wish to protect

**018** 00:01:27:20 00:01:31:20

The Great Barrier Reef is the world's largest coral reef system

**019** 00:01:32:16 00:01:35:00

So large it can be seen from space

**020** 00:01:36:19 00:01:42:03

Made up of over 2900 individual reefs and 940 islands

**021** 00:01:42:16 00:01:45:05

Covering an area the size of Germany

**022** 00:01:45:24 00:01:49:19

Every inch of it being made of billions of coral polyps

**023** 00:01:49:21 00:01:53:21

No larger than a human thumb in length and only millimeters across

**024** 00:01:53:24 00:01:55:20

It is located in the Coral Sea

**025** 00:01:55:22 00:01:58:05

Off the coast of Queensland, Australia

**026** 00:01:58:06 00:02:00:21

Reaching from Torres Strait in the north

**027** 00:02:01:19 00:02:03:07

Bordering on Papua New Guinea

**028** 00:02:04:02 00:02:05:24

To Fraser Island in the south

**029** 00:02:06:16 00:02:12:19

Harboring one of the world's most diverse ecosystems, including many vulnerable species

**030** 00:02:13:20 00:02:17:06

With thirty species of whales, dolphins and porpoises

**031** 00:02:19:11 00:02:22:15

As well as six species of sea turtles

**032** 00:02:23:14 00:02:25:05

7 species of frogs

**033** 00:02:25:05 00:02:26:24

9 species of seahorses

**034** 00:02:26:24 00:02:28:22

15 species of sea grass

**035** 00:02:28:22 00:02:31:02

17 species of sea snake

**036** 00:02:31:02 00:02:33:06

49 species of pipefish

**037** 00:02:33:08 00:02:37:11

125 species of shark, stingray, skates and chimaera

**038** 00:02:37:15 00:02:39:04

200 species of birds

**039** 00:02:39:22 00:02:41:20

1500 species of fish

**040** 00:02:42:00 00:02:44:15

2100 species of plant life

**041** 00:02:44:22 00:02:47:06

And 5000 species of mollusc

**042** 00:02:47:21 00:02:52:01

With saltwater and freshwater crocodiles along the coast near the reef

**043** 00:02:52:20 00:02:58:06

As such, it has become a major tourist attraction for divers and animal lovers worldwide

**044** 00:02:58:11 00:03:01:03

With 2 million tourists visiting the reef annually

**045** 00:03:02:11 00:03:07:03

Generating a profit of over 4.6 million US dollars every year

**046** 00:03:07:24 00:03:11:13

An increase of 7 times over the past 8 years

**047** 00:03:11:18 00:03:19:03

Employing 64000 people to cater to tourist demands as guides, diving teachers, resort staff and boatmen

**048** 00:03:19:20 00:03:25:18

With the main concentration of visitors occurring near the city of Cairns and the Whitsunday islands

**049** 00:03:26:20 00:03:34:19

The warm, clear waters and widespread tour boats scattered across the nearby islands making it an ideal tourist destination

**050** 00:03:35:24 00:03:40:07

Boat tours occurring daily, from single day trips to longer cruises

**051** 00:03:41:00 00:03:43:19

In boats ranging from dinghies to mega yachts

**052** 00:03:45:00 00:03:49:12

With additional glass-bottomed boats being popular among tourists for observation

**053** 00:03:50:17 00:03:55:22

Helicopter flights for overhead views of the grandeur of the reef being an additional common sight

**054** 00:03:57:06 00:04:10:05

Managed in partnership with the marine tourism industry with clear directions to ensure minimal harm is done to the reef, with strict policies in place to limit the range of cruise ships, bareboat charters and anchorages

**055** 00:04:10:24 00:04:15:17

Daily fees levied from all tourism operations to go to research of the reef

**056** 00:04:17:23 00:04:23:07

While fishing is the by far largest industry in the region in terms of monetary gains

**057** 00:04:23:21 00:04:30:08

Many tourists spending substantial amounts of money for a few days on a rented yacht and a valid fishing license

**058** 00:04:34:07 00:04:38:16

An industry that as a whole is worth nearly a billion dollars annually

**059** 00:04:39:02 00:04:43:20

Employing over 2000 people locally in various capacities as fishing guides

**060** 00:04:44:16 00:04:54:23

The Great Barrier Reef is today known as one of the few sites available for truly sustainable tourism, with government entities overseeing every facet of the industry

**061** 00:04:55:21 00:05:01:04

Gearing a large amount of money and effort into managing the fragile marine ecosystem

**062** 00:05:01:24 00:05:09:06

In order to increase tourist traffic and draw substantial amounts of money to fund much needed infrastructure in the region

**063** 00:05:10:16 00:05:20:22

With hopes to expand exponentially every year with substantial marketing and financial incentives to draw tourists in to spend money on the local businesses and industries

**064** 00:05:21:19 00:05:24:17

The Great Barrier Reef has now become a trademark

**065** 00:05:25:11 00:05:32:08

With designed logotypes conveying the clear message of a tourist attraction not much different than a theme park ride

**066** 00:05:33:21 00:05:37:15

While the aggressive expansion may still put nature in danger

**067** 00:05:39:23 00:05:46:13

Restrictions posed either being found increasingly insufficient or ignored in favor of commercialization

**068** 00:05:48:01 00:05:51:06

While the splendor of the coral reef itself is fading

**069** 00:05:52:02 00:05:55:17

With both tourist visits and global warming taking its toll

**070** 00:05:57:06 00:06:00:12

The greatest natural wonder on earth may still be alive

**071** 00:06:01:08 00:06:02:09

But for how long?

**072** 00:06:11:15 00:06:21:02

Though the founding coral rock beneath it dates back 2 million years, the Great Barrier Reef is believed to have been formed just over 500 000 years ago

**073** 00:06:22:04 00:06:29:12

Though with sea levels constantly rising and falling over thousands of years, the current coral only dates back 6000 years

**074** 00:06:29:22 00:06:33:19

Long after the arrival of the first human settlers, the aboriginals

**075** 00:06:34:08 00:06:39:10

First entering the area 40 000 years ago from Africa through Southeast Asia

**076** 00:06:39:24 00:06:46:08

Along with the genetically distinct group of Torres Strait Islander people, originally from Papua New Guinea

**077** 00:06:46:14 00:06:48:23

With markedly different culture and traditions

**078** 00:06:49:12 00:06:57:00

A total of 70 clans of Aboriginals and Torres Strait Islanders soon inhabited the Queensland coastline and islands

**079** 00:06:58:16 00:07:04:19

Both groups using outrigger canoes with nomadic settlements along the coast for thousands of years

**080** 00:07:05:19 00:07:09:13

Using the wind and constellations as navigational tools

**081** 00:07:10:10 00:07:14:14

Featuring the reef as a central motif in their native culture

**082** 00:07:15:10 00:07:18:11

For providing food and sustenance since their arrival

**083** 00:07:21:15 00:07:26:14

With dugongs and sea turtles being an essential component in aboriginal hunting

**084** 00:07:27:03 00:07:35:17

The hunt and the preparation of meat for consumption itself ritualized as an expression of centuries worth of tradition and social bonding

**085** 00:07:36:11 00:07:39:15

The animals hunted used as family and clan emblems

**086** 00:07:41:08 00:07:46:21

While green sea turtle shells were among the most important items used and traded

**087** 00:07:47:19 00:07:50:22

Frequently cut and used as combs and fishhooks

**088** 00:07:51:15 00:08:04:00

Western explorers only came upon the reef in 1768, when French navigator Louis de Bougainville first described the reef before being forced to turn back out of a shortage of food

**089** 00:08:04:06 00:08:12:04

While famed British explorer James Cook would run aground on the reef only two years later while exploring the Whitsunday Passage

**090** 00:08:15:12 00:08:20:17

Navigating his damaged ship into the mouth of the Endeavor river for repairs

**091** 00:08:21:01 00:08:29:17

While founding the first western settlement by the reefs, known as Cooktown, the first claim of Australian soil in the name of the Kingdom of Great Britain

**092** 00:08:30:03 00:08:32:15

Then under the rule of King George III

**093** 00:08:33:06 00:08:38:05

Though the area would later be named in honor of Queen Victoria as Queensland

**094** 00:08:39:22 00:08:44:23

The British soon formed the first penal colonies in Sydney of New South Wales

**095** 00:08:45:14 00:08:47:23

And Brisbane in the far south of Queensland

**096** 00:08:49:05 00:08:56:20

Decreasing the aboriginal population by up to 50 % with the inadvertent introduction of small-pox by the British

**097** 00:08:57:21 00:09:05:18

Tensions between aboriginals and British settlers increasing with the first free settlements founded in Queensland in 1842

**098** 00:09:06:06 00:09:12:10

The British expanding into aboriginal territories and oppressing the indigenous peoples by force

**099** 00:09:12:22 00:09:19:14

Resulting in massacres perpetrated on both sides and an estimated 30 000 aboriginal deaths

**100** 00:09:19:18 00:09:22:16

To a mere 2500 colonial casualties

**101** 00:09:23:21 00:09:28:23

Becoming known as the Australian frontier wars or the war of extermination

**102** 00:09:30:02 00:09:34:15

Lasting 146 years, ending only in 1934

**103** 00:09:35:13 00:09:39:13

The battles and massacres being particularly violent in Queensland

**104** 00:09:39:24 00:09:45:08

With over a third of all aboriginals on the continent situated along the east coast

**105** 00:09:45:20 00:09:51:13

Similar acts of oppression soon also perpetrated against nearby Pacific islanders

**106** 00:09:53:02 00:09:57:02

Who were often kidnapped and forced into hard labor and slavery

**107** 00:09:59:20 00:10:04:14

With industrialized fishing quickly becoming a major industry in the region

**108** 00:10:08:22 00:10:13:22

Targeting larger predatory fish like coral trout, snapper and emperor fish

**109** 00:10:16:24 00:10:21:12

While pearls became a well-known luxury export commodity of Queensland



**110** 00:10:23:08 00:10:27:21

Exploiting the ecological diversity of the reef for monetary gain

**111** 00:10:35:24 00:10:42:00

Today, the Australian government has posed significant sanctions to protect the wildlife of the reef

**112** 00:10:42:18 00:10:47:23

There remains little incentive to further limit destructive fishing practices

**113** 00:10:48:06 00:10:55:06

With tourism additionally exacerbating the issue with both recreational fishing and consumption of local seafood

**114** 00:10:56:01 00:11:02:03

Tourism that itself became a major industry following the backlash of White Australia policy

**115** 00:11:02:12 00:11:08:06

When Queen Victoria declared the Commonwealth of Australia as a dominion of Great Britain

**116** 00:11:08:12 00:11:11:23

A new policy was also formed of White Australia

**117** 00:11:12:17 00:11:21:01

Australian settlers seeking to increase immigration from Europe to form a unified national identity separate from Asia at large

**118** 00:11:21:14 00:11:28:06

Legally sanctioning racial discrimination, favoring European descendants and deporting many foreign nationals

**119** 00:11:28:12 00:11:31:09

A practice lasting until 1966

**120** 00:11:31:17 00:11:37:00

Following a conscious act to open the Australian border to Vietnamese refugees

**121** 00:11:37:11 00:11:41:15

Foreign policy shifted toward an encouragement of multi-ethnicity

**122** 00:11:42:12 00:11:44:13

With immigration from all continents

**123** 00:11:45:13 00:11:53:00

With a dedicated push to encourage global as well as domestic tourism to drive up local economy in the Queensland area

**124** 00:11:54:05 00:11:58:24

Today, tourism has grown into a major industry in the vicinity of the Great Barrier Reef

**125** 00:11:59:14 00:12:05:16

But based in both a legacy of destruction and bloodshed as well as commercial exploitation of nature

**126** 00:12:06:21 00:12:09:16

Tourism may also prove to be its downfall

**127** 00:12:20:02 00:12:23:06

Today, the Great Barrier Reef faces many threats

**128** 00:12:23:16 00:12:27:04

None the least the direct ecological impact of tourism

**129** 00:12:27:18 00:12:33:14

Including damage to the reef incurred by water quality issues first discovered in 1989

**130** 00:12:35:13 00:12:41:05

30 major rivers and hundreds of smaller streams feed directly into the Great Barrier Reef

**131** 00:12:41:17 00:12:50:02

Many of which are already contaminated or risk contamination through contact with industrial waste generated by tourism-related industries

**132** 00:12:51:17 00:13:03:17

With 700 out of the 3000 reefs being at direct risk of contamination of acidic sediment and chemical runoff generated by farms catering to the hotels and resorts across the coastline area

**133** 00:13:04:18 00:13:09:23

Including copper, pesticides, fertilizer and byproducts from sugar cane harvesting

**134** 00:13:10:05 00:13:12:08

Entering the Great Barrier Reef lagoon

**135** 00:13:14:22 00:13:20:22

Shown to have a directly detrimental effect on the development of coral polyps and marine life

**136** 00:13:21:06 00:13:27:15

The added nutrients coming from fertilizer leading to intensified outbreaks of coral-eating starfish

**137** 00:13:28:24 00:13:34:14

Contributing to a loss of over two thirds of live coral cover in the affected reefs

**138** 00:13:36:03 00:13:43:09

As well as resulting in increased competition for light and oxygen for the reefs from significant outbreaks of algae

**139** 00:13:44:22 00:13:53:17

The decrease in water quality due to excess nutrients has also been suggested to have encouraged the spread of infectious diseases among the corals

**140** 00:13:54:24 00:14:00:13

Decreasing the amount of healthy coral and thus affecting the ecosystem of the reef at large

**141** 00:14:05:19 00:14:16:10

With the construction of new shipping ports expected to lead to the mass dumping of 106 million cubic feet of dredged sea bed into the Great Barrier Reef area

**142** 00:14:17:21 00:14:23:22

Clouding the water, preventing sunlight from passing through and smothering coral and sea grass to death

**143** 00:14:25:12 00:14:32:19

Becoming a recurring issue as tropical cyclones would suspend the particles repeatedly, worsening the effects

**144** 00:14:35:18 00:14:43:02

While ships, both freighters and tourist cruises, run the risk of grounding or experiencing direct collisions with the reef

**145** 00:14:45:08 00:14:49:04

Over 9600 are estimated to pass through the reef each year

**146** 00:14:49:21 00:14:55:22

A number which is forecasted to increase by 250% over the next 20 years

**147** 00:14:57:15 00:15:01:08

75% of which traveling directly over the reef

**148** 00:15:03:04 00:15:08:07

Resulting in over 40 serious impacts occurring over the past 30 years

**149** 00:15:09:00 00:15:13:23

An estimated 1600 shipwrecks thought to be found in or around the reef

**150** 00:15:18:06 00:15:26:12

Waste and foreign species discharged from the ships in ballast water being a serious biological hazard disrupting the ecosystem

**151** 00:15:27:07 00:15:32:07

With additionally toxic compounds in the paints of ship hulls poisoning the waters

**152** 00:15:34:03 00:15:43:19

As well as oil spills, the last of which causing damage to an area of over 4 million square feet, oil reaching as far as islands 15 miles away

**153** 00:15:45:17 00:15:52:20

Fishing, recreational and industrial, being a major factor in directly disturbing the marine wildlife of the reef

**154** 00:15:53:13 00:15:57:19

Through by-catch of unwanted species of dolphins and sea turtles

**155** 00:15:59:09 00:16:01:10

Drowning while caught in the nets

**156** 00:16:02:22 00:16:06:23

Many of which being endangered or on the verge of extinction already

**157** 00:16:09:21 00:16:13:10

Overfishing practices of particularly the Giant Triton

**158** 00:16:14:04 00:16:16:22

And sharks as well as other smaller predators

**159** 00:16:17:02 00:16:19:20

Causing far reaching disruptions in the food chain

**160** 00:16:22:02 00:16:28:11

Shark fishing being particularly popular among tourists for their often expensively sold meat and fins

**161** 00:16:32:19 00:16:36:08

And out of a sense of antagonism from recreational fishermen

**162** 00:16:37:15 00:16:41:01

As they are often seen as detrimental for other types of fishing

**163** 00:16:44:10 00:16:49:01

Many sharks accidentally caught having their limbs cut off and thrown back in the ocean

**164** 00:16:51:12 00:17:00:24

Additionally leading to herbivorous fish quickly overpopulating and causing serious damage to the coral reef when left unchecked by their natural predators

**165** 00:17:02:19 00:17:08:17

The reef itself being frequently damaged by trawling, anchors and nets getting caught in the corals

**166** 00:17:10:16 00:17:19:13

Anchoring of tourist ships leading to significant breakage of multiple coral colonies with each drop, leading to cumulative damages over time

**167** 00:17:21:23 00:17:25:15

Despite numerous areas designated no anchor zones

**168** 00:17:26:24 00:17:30:13

Many tourists also contribute to coral breakage

**169** 00:17:31:09 00:17:35:17

Wherein the divers inadvertently break off branches and pieces of coral

**170** 00:17:36:09 00:17:42:11

With the carrying capacity of coral reefs being a mere 5000 divers per site per year

**171** 00:17:43:21 00:17:48:15

Any number beyond that reportedly showing clear environmental deterioration

**172** 00:17:52:16 00:17:59:02

While one third of the designated Great Barrier Reef Marine Park is protected from fishing and species removal

**173** 00:18:00:21 00:18:03:19

Illegal poaching remains a common threat to the reef

**174** 00:18:06:03 00:18:10:10

Despite being designated a World Heritage Area in 1981

**175** 00:18:29:04 00:18:33:09

The biggest threat to the Great Barrier Reef remains global climate change

**176** 00:18:34:01 00:18:40:14

The worldwide acidification of the ocean directly found to affect marine life and bleach the coral reef

**177** 00:18:41:01 00:18:46:23

Destroying layers of corals and reducing the reef's ability to absorb oxygen and sunlight

**178** 00:18:49:23 00:18:57:11

Increasing water temperatures also directly shown to affect the delicate balance of corals and their competition of algae

**179** 00:18:58:08 00:19:01:21

With a widespread ripple effect felt throughout the reef

**180** 00:19:02:07 00:19:15:17

Climate change also influenced by tourism industries, where the loss of coastal wetlands in favor of construction of resorts have directly led to an increase in toxins and pollution from inland industries and mining operations

**181** 00:19:16:06 00:19:23:03

As the coastal wetlands would commonly act as a natural filter, blocking up toxins before reaching the waters' edge

**182** 00:19:23:15 00:19:29:20

The reef islands particularly targeted by the construction of new resorts, made ideal for island-hopping

**183** 00:19:30:09 00:19:35:19

Island resorts supporting 300 million dollars' worth of tourism business per year

**184** 00:19:36:04 00:19:46:20

With massive infrastructure developments on previously uninhabited islands necessitating the construction of houses and bungalows as well as marinas, roads and helipads

**185** 00:19:47:19 00:19:54:03

The construction of marinas in particular singled out as a serious threat to the local marine life

**186** 00:19:55:03 00:20:05:15

With dredging of the sea bed resulting in changes of the water levels over the reef flats and the dumping of discarded soil on land and general waste disposal in water discharges

**187** 00:20:06:11 00:20:11:15

Government agencies only in recent years taking action to regulate construction

**188** 00:20:13:00 00:20:19:19

The 27 fully developed resort islands still expected to double in numbers over the next 20 years

**189** 00:20:21:01 00:20:31:17

The direct concentration of tourism to the vicinity of the coast of Cairns and the Whitsunday Islands has also concentrated environmental concerns to a handful of selected areas

**190** 00:20:32:14 00:20:38:18

85% of all visitors passing through an area taking up less than one tenth of the entire reef

**191** 00:20:39:14 00:20:43:23

Giving rise to issues of increased pressure on public infrastructure

**192** 00:20:44:19 00:20:46:20

Such as sewage and transportation

**193** 00:20:49:04 00:20:53:00

Directly affecting water quality through waste disposal in the ocean

**194** 00:20:55:13 00:20:57:22

As well as the discharge of freshwater

**195** 00:21:00:10 00:21:08:16

Vegetation damage and loss of wildlife habitats has also occurred along with the increased focus on motorized vehicles and vessels

**196** 00:21:09:09 00:21:13:05

Roads and marinas constructed all along the affected area

**197** 00:21:13:16 00:21:17:09

Causing damage to both marine life and the coastal ecology

**198** 00:21:21:06 00:21:27:16

Seabird nesting sites in particular vulnerable to a loss of habitat along the coastlines and islands

**199** 00:21:32:03 00:21:36:10

Causing a sharp decline in seabird populations across the region

**200** 00:21:40:15 00:21:46:20

The overcrowding of tourists along the region has also led to the aboriginal population being pushed out

**201** 00:21:53:15 00:21:59:08

Instead required to move inland to maintain their native practices of hunter-gatherer

**202** 00:22:01:03 00:22:05:09

Though regulations for fishing and hunting in the reef favors the aboriginals

**203** 00:22:05:18 00:22:11:22

Many of which find themselves outmatched by commercial and recreational fishing using modern equipment

**204** 00:22:14:07 00:22:17:13

As well as lacking areas for their nomadic settlements

**205** 00:22:18:24 00:22:23:01

With more and more of the beaches and islands taken up by tourists

**206** 00:22:24:15 00:22:33:17

Though the Australian government values their natural wonders and attempt to enforce large-scale restrictions and clear regulations for tourists to follow

**207** 00:22:34:10 00:22:39:00

The expansion of the tourism industry has made it increasingly hard to keep up

**208** 00:22:41:05 00:22:47:14

Tourism businesses taking advantage to the windfall of tourists in areas not yet strictly regulated

**209** 00:22:48:19 00:22:54:15

It is up to us as visitors to temper ourselves and the impact we have on our environment

**210** 00:22:54:21 00:22:57:08

To encourage not only the protection of the reef

**211** 00:22:58:13 00:23:02:14

But also of the aboriginal practices that were in place long before us

**212** 00:23:04:01 00:23:10:17

And to encourage the local government of enforcing stricter self-regulation practices of tourism businesses

**213** 00:23:11:06 00:23:14:09

With firm codes of conduct and environmental training

**214** 00:23:17:01 00:23:20:15

As well as increased direct management of the reef at large

**215** 00:23:23:07 00:23:27:13

So that we may enjoy the wonder of the Great Barrier Reef in years to come

**216** 00:23:28:02 00:23:31:05

Instead of letting it crumble with our mere presence



**217** 00:23:32:11 00:23:33:16  
Chipping away at nature

**218** 00:23:34:23 00:23:35:17  
Bit by bit

**219** 00:23:37:17 00:23:38:19  
Loving it to death