

"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