

00:19

Treasure hunting in the Gulf of Mexico,
a hospital for sea-turtles,
the restoration of a coral reef,
life in the Everglades,
Kite Surfing along the Florida coast
and archeological discoveries:

00:49

The East coast of Florida holds many secrets.

01:06

The Florida Keys: 220 miles of islands at the Southern tip of the United States. Hot and humid in the summer, pleasantly warm in the winter. A favorite place for holiday-makers, retirees and people who enjoy unusual challenges.

01:33

Originally these islands were inhabited by Native Americans. When the Spanish conquerors arrived in the 16th century, the Native Americans managed to fight them off – at first.

01:46

In the 17th century the ships of the Spanish treasure fleet sailed along the Keys. They transported silver and gold from the American colonies to Europe.

01:58

The coast is regularly hit by hurricanes, and about 400 cargo ships are believed to have sunk in this area.

To this day, divers continue to search for sunken treasure.

02:11

Mel Fisher's Treasures is a professional treasure hunting company. It's a family business run by Kim Fisher.

02:23

All underwater finds are carefully marked on a map. There are still many areas which haven't been searched yet. Kim Fisher is sure that more gold is yet to be found.

02:36 O-Ton Kim Fisher

Everybody dreams about looking for buried treasure and I got to live that dream. I was going out on a boat when I was six years old, and when I was nine, I convinced my father to let me start diving for treasure. And I found my first piece of eight when I was nine years old, and I've been hooked ever since.

02:58

For more than 15 years, Kim's father Mel searched for the wreck of the Atocha, a famous Spanish ship. It sunk during a hurricane in 1622 with 550 people on board. Mel Fisher found large parts of the ship along with 40 tons of silver and gold.

The stern castle is still lying on the seabed – probably along with a major part of the treasure.

03:25

Kim Fisher runs the family enterprise which includes two museums. They house a conservation laboratory and have millions of objects on display.

But who does this treasure belong to? The Fishers are convinced it's theirs.

After all, they have invested years of expeditions, and a lot of equipment and manpower.

But there was a problem.

03:52 O-Ton Kim Fisher

The state of Florida and the federal government both claimed ownership. And my dad tried to make a deal with them, he offered them 35 % and they said they wanted it all. So we went to court for eight years and it went to the United States Supreme Court and they said finders, keepers. So. We got it all.

04:15

It's not only the valuable pieces that Kim Fisher is interested in. Other objects may hold important information about the people and the life onboard. To keep these pieces from deteriorating, they are stored in fresh water. They haven't been exposed to oxygen for 400 years! These ship-nails for example, which are covered in coral, or this cannon ball.

04:48 O-Ton Kim Fisher

At initial glance, it just looks like a rock. You know, it doesn't look like treasure, except for gold.

The gold is shining so when you see gold, you know it's treasure.

Every time I find something it's an incredible thrill, it's a very addictive feeling even if it's not gold or silver. It's just a neat feeling, you wonder, who was the last person to hold that piece or use it, you know. The history behind it, it's a never ending history lesson.

05:25

To help finance the treasure hunt, Kim recruits investors. They can go diving themselves and keep a part of the recovered treasure in return for their investment.

05:43 O-Ton Kim Fisher

When we are all dead, this gold will be just as shiny. And it passes from hand to hand and from men to men forever.

05:56

The name "Keys" comes from the Spanish "cayos", meaning "flat islands". They are the remains of an ancient coral reef.

06:06

The Overseas Highway connects the larger islands. It has 42 bridges. The most spectacular of them is the "Seven Mile Bridge".

06:20

At the end of the Seven Mile Bridge is the small town of Marathon. Its main income is from tourism.

Water sports, diving and fishing are very popular, but they also cause considerable strain on the ecosystem.

Synthetic materials used in these sports pollute the water and are dangerous for fish and other sea animals.

The turtle hospital is a special clinic for sea turtles. This turtle is being taken to the operating room right now.

06:53

Marine biologist Bette Zirkelbach wants to make sure that the sea turtles in Florida will still be here for her grandchildren to see.

07:14 O-Ton Bette Zirkelbach

This is Captain Hook, he was found in the Florida Bay. When they looked into his mouth they saw part of this fishhook as you can see in the radiograph. So he was brought into the Turtle Hospital so that we could remove the hook. It was very large.

07:17

Sea turtles will eat almost anything they find in the water. But they cannot digest synthetic materials. They block up the digestive system. So some turtles actually starve to death.

07:30 O-Ton Bette Zirkelbach

An adult sea turtle has very few natural predators. Unfortunately, in order to understand why sea turtles are endangered, we need to look at the actions of humans. Marine debris is a big one, ingestion of trash and plastic, also entanglement in fishing line and fishing gear. The commercial fishing industry.

What I love about sea turtles is they're like working with dinosaurs, they're ancient, and you just get that feeling when you work with them. They've been on the planet and survived many things in 200 million years and we're here to help make sure they survive us as humans.

08:06

This is the Turtle Hospital ward.

Sick or injured sea turtles are usually reported by the coast guard or by local residents.

08:15

Bette and her colleagues are worried about a virus infection afflicting more and more green sea turtles in Florida.

Jack suffers from this disease. It causes fibro papilloma - tumors that can be fatal.

08:32

Typically, the shells and skin of the sick turtles are covered in a thick coat of algae. They spend less time at their cleaning sites because the fish that clean them also bite into the tumors, which is very painful for the turtles.

08:45 O-Ton Bette Zirkelbach

Jack gets a bath regularly, he gets the algae scrubbed off of him. He's currently on a broad spectrum antibiotic and that's just to keep infection down because he's in the process of getting those soft tumors removed from his soft tissue so that broad spectrum antibiotic will keep him healthy through that. Also fluids, whenever we give medications to the turtles we make sure we give them fluids and keep their kidneys healthy.

09:11

Jack receives his daily infusion.

09:22

The hospital is financed by donations and income from educational tours.

09:29 O-Ton Bette Zirkelbach

The Turtle Hospital is the only certified veterinarian hospital for, strictly for sea turtles in the world. We see patients from different countries that are flown to us and we receive an average of 50 to 70 patients per year.

09:46

Captain Hook is doing better. He's ready to go home.

09:57 O-Ton Bette Zirkelbach

My favorite part of my job is taking those turtles back to their ocean home and seeing them swim off. Even if they're here over a year, once we place them back in the ocean they just swim off and they don't even turn around or send Christmas cards, they're gone.

10:14

Captain Hook is set free in the open sea. The Turtle Hospital has saved his life.

10:32

An endless string of islands marks the way north towards the mainland.

10:39

The Florida Keys are part of the world's third-largest coral barrier reef. However, many reefs are dying.

10:52

To prevent this, the „Coral Restoration Foundation“ was set up in Key Largo. In the morning a team from the foundation is setting out for a trip to the nursery.

11:10

Tens of thousands of corals are grown in several offshore nurseries. Staghorn and Elkhorn Corals were once the dominant reef building corals in the Florida Keys. Over the past 30 years they have declined by over 90%. These species are fast growing. Their branches will form dense thickets.

11:37 O-Ton Kayla Ripple

We grow most of our corals on a tree nursery which is like a little Christmas tree, it's a big PVC pipe and it has arms branching out of it that we can hang Staghorn and Elkhorn corals from. And when we hang them on there, we put a little loop around the coral and a piece that's the size of your pinky can grow to be about the size of two palms of your hands in just a year.

12:00

Kayla Ripple is a marine biologist with a dream: she wants to rescue the coral reef at Key Largo

12:07 O-Ton Kayla Ripple

It all started back when I was in college. I did a study abroad course to Roatan in Honduras and I remember seeing this field of staghorn coral, and it was so beautiful and it's something I'll always remember. And then I would come snorkeling and diving here at the reefs in Key Largo. It used to look like it did in Roatan and other countries where they had these pristine reefs and now it's just degraded and there is almost 98% of our coral is lost.

12:36

Pollution and ocean warming – due to climate change – contribute to the corals' dying off.

12:49

Kayla and her colleagues intend to “replant” the coral reef.

It’s a race against time.

13:07

After about 8 months in the nursery, the corals are outplanted to a degraded reef. Each of these fragments will grow into a new coral colony.

13:32

The divers fix the corals to the reef using a special glue.

13:44 O-Ton Kayla Ripple

We actually plant them in a one meter circle, so that they create a natural staghorn thicket already. So that when these corals grow, those branches are going to fuse together and create a nice 3D structure and 3D habitat for all of these different reef fishes to start inhabiting. The fish are so curious, they love the corals as soon as we put them down there. It's pretty amazing to see the life they attract just the minute you put them there.

Key Largo is a hotspot for diving. It's just a part of my life that I've never wanted to give up and I'm so happy to be here and be with the ecosystems that I love most.

14:35

From Key Largo, uninhabited islands and Mangrove forests lead the way to the Everglades swamp.

14:42

This huge subtropical wilderness once covered the whole of Southern Florida. Today half of it has been drained to allow for agriculture and settlement. A large area on the southern tip of the state is protected. It’s a national park and part of the UNESCO world heritage.

15:03

Few people venture out into this wilderness.

15:10

Jesse Kennon grew up in the Everglades. His propeller-driven airboat takes him everywhere in the swamp.

15:22

He offers guided tours for tourists and film crews.

15:26

The Everglades are home to countless species. The alligators are protected – they can only be hunted with special permits.

15:37 O-Ton Jesse Kennon

The alligator is the dominant part in, and a monarch of the Everglades. So you’re going to see more alligators than you will see most of anything else in the glades. So in the state of Florida you have about a million and a half alligators.

15:50

Alligators live in sweet water.

Jesse knows their hiding places

16:00

He has spent so many years observing them – he can now even imitate their language.

16:11 O-Ton Jesse Kennon

That sound is a sound of a baby alligator, like a little small alligator. And it creates curiosity for the adults, they always check it out and see what it is. So it's something like this: ...

16:29

It's better to be careful with alligators.

16:33 O-Ton Jesse Kennon

If you would put your hands out it would be dangerous, you don't want to put your hands out, cause they do have the capabilities if they got your hand they could take your hand off. So you definitely don't want to do that, you don't want to try and touch them, just look at them stay at safe distance and you're fine.

16:51

Jesse's family came to the Everglades back in the 1940's. They caught frogs and sold frogs' legs as a local delicacy.

17:05

On the site of a former Indian village the family founded their own town: Coopertown. Current population: eight. In Coopertown you can still eat frogs' legs and gator tail or book a boat tour.

17:20 O-Ton Jesse Kennon

Well I'm the mayor of Coopertown, cause somebody had to take care of the responsibilities, that's me, I get elected for that, okay. We have a restaurant, we have our big house that's the main house. We have our repair maintenance shop, okay, we have a bait and tackle shop.

17:54

Fishing is a popular pastime in Florida – and it's not only about catching fish.

18:00 O-Ton Jesse Kennon

I like Florida itself because it has a lot to offer to, like we have the ecosystem of the Everglades which is very unique, it's the only place in the world that exists like, exactly like this. It's very magical and mystical to me because, I like it out there, cause it's very tranquil uh, has a lot of different wildlife, it's very soothing.

18:37

Just east of the Everglades: Miami: the "Magic City" where gambling and tourism are important. From the world's leading cruise port, luxury liners set out for the Caribbean.

18:53

At the end of the 19th century, Miami was a village with a population of 300. The city's growth began when the railroad was extended to Miami.

19:06

The stilt houses of Stiltsville. When alcohol was prohibited during the Prohibition between 1920 and 1933, this ban was not taken very seriously around Miami. And these wooden houses served as a popular gathering place for Miami's merrymakers.

19:31

Miami Beach is the East coast's most famous stretch of sand,

19:38

followed by an endless series of beaches to the North.

19:45

50 Miles from Miami is Delray Beach.

19:52

When the wind is good, Delray Beach is a top spot for kite surfers.

20:02

Using stunt kites, the surfers can go at 50 miles per hour or more.

20:17

Sean Reyngoudt is a professional kite-surfer and wake boarder.

Surfing means everything to him.

Some time ago, he was not even able to stand on the beach.

An accident nearly cost him his life.

20:36 O-Ton Sean Reyngoudt

When I was 19 years old I was working in a fish house on Summerland Key and I was injured in a fork lift accident. And the fork lift drug me for about ten feet and my foot was completely mangled. At that point I thought life was over, I didn't know what, if I would ever be able to run again in my life or be able to do anything. I was an athlete before, running track in high school, cross country, played baseball, soccer, and I was a pretty fit athlete.

I was depressed for a long time and just really didn't know what to do until I was able to get my prosthesis. That changed my whole life for me.

I started training again about a year after I lost my leg, cause I heard about this contest called the extremity games. It's only for amputees, they have wakeboarding, rock climbing, skateboarding and BMX. I really wanted to try out for it cause it was the first year they were holding it so I got back on the board and you know, tried to get my leg back in the situation that it needed to be to stay on in the water.

21:58

Every day Sean practices wakeboarding at this water-ski cable park. Instead of riding in the wake of a boat, he uses the obstacles in the water to perform his tricks

Training for the contest has made him stronger.

22:19 O-Ton Sean Reyngoudt

Went up for the contest and did really well, I got first place and it kind of helped my drive forward in pushing myself to the limit.

22:29

Carving wooden figures in his backyard helps him clear his mind.

With his prosthesis, Sean can keep on living the life he wants to live.

22:46 O-Ton Sean Reyngoudt

The lifestyle here in South Florida is kind of a beach lifestyle, it is pretty laid back, it's like island style. so everybody's got to be somewhat presentable in their swim wear and uh, I think that you know, everybody wants to be fit and active and it's a good lifestyle.

You got to move forward with whatever happened and just be appreciative of what you have and just make the best out of your life. You only got one time here and you got to enjoy it the most you can.

23:24

100 miles north of Delray Beach is Pelican Island, the oldest designated nature reserve in the United States

23:34

Another 140 miles along the coast is Kennedy Space Center at Cape Canaveral, the United States' rocket launch site.

Manned and unmanned space flights take off here and at the US Air Force Station nearby.

In 1969 the first humans landed on the moon. The famous Apollo 11 and other spacecraft can be toured here today.

24:07

100 miles north of Cape Canaveral is St. Augustine - one of the oldest European settlements in the United States.

24:18

In the spring of 1513 Spanish conquerors landed on the coast of the New World and formally laid claim to the area for the Spanish crown. They named it "La Florida" – after "Pascua Florida", the Spanish term for the Easter season. The indigenous population of Native Americans put up strong resistance.

24:38

It was not until half a century later that, led by Admiral Menéndez, the Spanish started their first permanent settlement here.

For several centuries the Spanish were to fight Indians as well as the French and the British. To protect St. Augustine against invaders, Castillo de San Marcos was built at the end of the 17th century - using Indians and slaves as construction workers.

25:03

City archaeologist Carl Halbirt researches St. Augustine's historical heritage.

500 years of history – by "new world" standards, this is a long time.

25:17 O-Ton Carl Halbirt

St. Augustine really is America's first melting pot. Cause when Menéndez came here, he brought with him, you know, not only Spaniards but he brought people of African descent. They were slaves, alright. Shortly after the founding of St. Augustine Native Americans started to become assimilated into Spanish society. And so by the 18th century St. Augustine really is a cosmopolitan community.

25:45

In the course of the 19th century the indigenous Indian population had almost completely disappeared. They had died from European infectious diseases, been killed in wars, or driven away.

25:58

The city's European influence is still obvious today and attracts many tourists.

26:08

St. Augustine is proud of its heritage. Before new buildings are constructed, the ground has to be examined for archeological findings.

26:25 O-Ton Carl Halbirt

I like to think of St. Augustine as kind of like an archeological gold mine. Because what it is is that you cannot stick a shovel into the ground and not hit something. It's just, the archeological heritage is that diverse, that rich and that unique.

26:42

Carl and his team meticulously sift through every bucket of dirt. Sometimes they only find fragments of seashells.

26:59

Carl is constantly on the lookout for anything that may tell him something about the lives of the early settlers.

27:07

He examines the artifacts in his laboratory.

Some objects date back much further than the beginnings of St. Augustine. They are proof of a rich Native American heritage.

10,000 years ago the American Indians were hunter-gatherers. Later on, they were farmers and traders and lived in permanent villages.

27:38 O-Ton Carl Halbirt

Archeology is the study of trash. Because we don't have spectacular finds here, you know. What we have are the items that people have left behind. This is the trash that, that they threw, that they threw out their window. Or buried in a pit.

27:55

Most findings date back to the St. John's period, the 2,000 years preceding the establishment of St. Augustine. This time is named after the St John's River along which the Native Americans lived in large villages. They too left behind objects made of clay.

28:16 O-Ton Carl Halbirt

All we found here is this particular type of pottery. St. John's and 2 pieces of Spanish olive jar. And so we are very excited about this, because this particular site that we are working on here, may be associated with the Menedez encampment. In relation to the St. John's check stamp that tells us, that the Native Americans are interacting with the Spanish.

28:43

When the Europeans first arrived in the New World there were 60 Indian tribes in Florida. Today all there is left is two reservations in the South of the state.

28:56 O-Ton Carl Halbirt

I would live no place else. I mean St. Augustine to an archaeologist, you know, St. Augustine really is - nirvana.