

00:19

The Yale University Rowing Team.

An alpaca farm in Rhode Island.

Scallop-Fishing in Massachusetts.

Researching the ecosystem around Cape Cod.

Cranberry farming near Plymouth

and vegetable-farming in Boston.

Along the coast of Connecticut, Rhode Island and Massachusetts, nature plays an important part in people's lives.

01:05

New Haven, Connecticut, proudly remembers the time, almost 250 years ago, when the 13 British colonies in North America became independent.

01:20

At that time Yale University already existed. It was founded 300 years ago. To this day it's one of the best universities in the world... and it's the city's biggest employer.

01:35

For generations, top universities such as Yale have produced young academics for politics, law and economics.

01:45

Maddie Lips comes from Colorado. She is a political science major in her senior year at college.

01:52 Maddie Lips

It's really, really old and the buildings are beautiful, so you get this sense of this tradition of education and just sort of excellence that is inspiring, and sometimes daunting.

02:09

Yale's 14,000 students have great chances for top careers. But only one out of every ten high school students applying to Yale will be accepted.

02:20 Maddie Lips

You have to work really hard in high school, and there is a lot of competition to get your spot at Yale, but I've noticed that once people sort of have that spot, they tend to relax and actually enjoy their studies, take a breath from the hectic competition of getting here

02:39

Sports are important at American universities. Yale has a nine story gothic style gym. It offers all kinds of training facilities including a large area for general exercise and strength training.

03:02

Maddie spends more time in the gym than she does in lecture halls. She is a member of the US junior national rowing team. She exercises twice a day and benefits from Yale's highly professional training facilities.

03:23

Maddy is captain of the Women's Eight at Yale. Six times a week the rowing team heads out onto the water for training.

03:39

Of all sports, rowing shows best how greatly upheld tradition is New England.

Yale was the first university in the United States to have its own rowing team – soon followed by Harvard University.

03:54

In 1852 Yale and Harvard started competing in regular boat-races – following the example of the British universities of Oxford and Cambridge. About 50 years ago, women joined the regattas, too.

04:09 Maddie Lips off

Rowing is a very interesting sort of sport, it attracts a certain type of person I think, who really enjoys, you know, doing something repetitively over and over again. But seeing, seeing yourself become faster as you do that, it's kind of like an addictive sport actually in that way. Because you're always trying to get faster, and always training to improve. The boat starts moving, and you feel the flow and the rhythm of the boat, that is an amazing feeling, there is nothing like it.

04:38

Being a member of the Yale Eight means rowing for the university's reputation.

This motivates the students to work hard in order to bring their strokes in harmony with each other.

04:54 Maddie Lips

Rowing has given me a lot of confidence. It's a battle in your own self, daily, that, defines who I am, I think.

I definitely see myself rowing forever; you know I want to be one of those 90 year old people in a single, still rowing, just for personal enjoyment.

05:16

However, all that counts right now, is to beat the Harvard crew in the coming season.

05:30

On the way north along the Connecticut coast, lies the town of Groton, home to the US Navy's largest submarine base. For over 100 years, US submarines have been built here. During World War II, a new submarine left the docks every other week.

Today more than 18,000 people work here.

06:03

50 Miles further to the East is Newport, Rhode Island. In the 19th century, America's upper class discovered the area around Newport and built some of the grandest mansions in the country.

European architecture served as an inspiration, and expressed the American' desire to imitate and outdo the Old World.

06:29

A few miles further on, the stables of this historic property have not been converted into a luxury homes. They are still used for farming.

06:48

These animals on Aquidneck Island have come all the way from the Andes in South America.

07:01

The 60 alpacas belong to Ann Tarsagian and her husband Kevin. They breed and raise alpacas.

07:12 Ann Tarsagian

With alpacas, the first thing that you would think of when you meet them is: they're very smart. Ah, second to that is: every single one is unique into itself. Alpacas are very, very friendly and calm and gentle, and they have personalities, and quirky characteristics. Like a bunch of children in a field.

07:31

Last night the youngest member of the herd was born. It is just 8 hours old.

07:40 Ann Tarsagian

Every single alpaca that is born on this farm is a beautiful experience for us. You would think you would get tired of it, I can tell you, we've seen hundreds – and it seems like everyone is just as special as the one before. Their first reaction is to stand up and – they're called the drunken sailor – those really long legs and a long neck. So lot of times you're holding your breath thinking 'they going to get hurt' – they don't, they make it

08:14

Ann used to sell antiques. In 1998 her husband brought the first alpacas to the farm.

08:34 Ann Tarsagian

When we started, there were no like 'how to do this', no schools. And you learn by hard knocks. The beginning was tough. It was very tough. The...we actually learned with the veterinarians. There was a lot of heartbreak; there was a lot of success. You know, we forced ourselves to train ourselves, it was actually great fun - learning.

08:57

Each morning, the entire herd is let out to graze.

09:09

The female alpacas are kept separate from the male alpacas. This way the farmers can decide which animals they will put together for breeding.

09:22

The Tarsagians are very committed to their farm. Some time ago they prevented a coastal road from being built. It would have cut right through their historic farmland.

09:40

The farm's location near the coast is ideal for alpacas. The sea breeze keeps the animals cool despite their thick coat. They are sheared once a year. One fleece is worth around 700 dollars.

10:14 Ann Tarsagian

The characteristics of alpaca wool, that really separates it from cashmere and other fibers, is that it has no lanolin, so it's hypoallergenic. And it's fire-resistant, naturally, stain-resistant, naturally. You can go out and have a glass of red wine and spill it and it'll come out the next day. And also alpaca fiber is extremely, extremely warm. I think it's about five times warmer than wool. And the best part of course is it's luxuriously soft.

I think what I like most about being an alpaca farmer is that every day I go to work with 60plus employees – I've never had one of them not show up, talk back to me. It's the easiest most enjoyable thing I've ever done. I'm living a dream.

11:06

The journey continues to Massachusetts, The island of Martha's Vineyard is a popular vacation spots. Martha's Vineyard has 125 miles of shoreline. The clay cliffs of Aquinnah are ecologically protected by law.

11:27

Many Americans dream of living on the waterfront. However, on Martha's Vineyard erosion causes big problems. All buildings on this estate have to be moved 100 yards inland.

11:49

On the neighboring island of Nantucket, dozens of houses are at risk. The sandy cliffs lose several inches each year. This is due to storms and a rise of the sea level. An efficient solution to solve this problem has not been found yet.

12:09

This is the harbor of Chatham on Cape Cod. At five in the morning, fishermen set off for their fishing grounds in the Atlantic Ocean.

12:25

Bob Keese is one of them; he specializes in scallops. Today Bob will go out to an area about 30 miles off Cape Cod.

12:41

Bob has taken over the small boat and the business from his father. This metal dredge is used to catch the scallops. Bob has constructed it himself. It will be dragged across the ocean floor for 20 minutes.

13:04 Bob Keese

I think people get into fishing for almost the same reasons, you know, get to be out on the water, you know, not stuck in an office somewhere, with scalloping, this type of scalloping, where it's a small boat, you leave in the morning, you're back in the evening, you still have kind of a normal life.

13:32

While Bob operates the winch, his nephew Nate and boatman Dimitru take care of the dredge and their catch.

Large stones are an unwelcome by-catch with this fishing method. But smaller mussels and other sea creatures are mostly spared.

13:56 Bob Keese

Scalloping is a very sustainable fishery. I think the proof is now there are more scallops than there ever was. The smaller the dredges, the easier it is for fish to escape it, and the slower you tow the easier it is for fish get out of the way. Typically the smaller boats tow at a much slower speed than the bigger boats. But all the scalloping is a pretty clean fishery. Usually where scallops are, there's really not much else.

14:31

While the dredge slides across the bottom of the ocean again, the fishermen are busy shucking the scallops. Scallops have become a popular delicacy, also in Europe.

14:45 Bob Keese

This is what they call the roe, in some countries, they do eat that, the roe, during certain times of the year, but round here, they only want the meat. So we get rid of the whole soft stuff, except for the meat. But some people will eat the whole thing. I remember there was this lady from Greece, at the dock one time, she was like, "where are the scallops?", and we showed it to her, you know, "what do you do with the rest of it?", "we throw it over", "oh, what a waste!"

15:21

A daily round often lasts more than 12 hours. There's not much time for breaks.

15:32

Small-scale scallopers like Bob are struggling to survive since the amount of scallops they are allowed to fish per day was cut down. Bob has now joined forces with other fishermen. He wants to make sure that scallopers like himself are not disadvantaged in relation to the large fishing vessels. Some of his colleagues have sold their licenses to big scallop companies. But Bob wants to keep his business in the family as long as possible.

16:03 Bob Keese

I guess you feel like it's an honest living, you know, it's real tangible, you go out there, you have a visible product, and it's kind of the harder you work the more money you make, you know, you see, you're taking a product from the ocean, and bringing it home and selling it, for what it's worth.

16:23

Bob gets about 700 dollars for a sack of scallops. This is a bit more than his competitors from the big vessels get, because Bob delivers the scallops freshly-caught – not frozen.

16:46

Not far from Bob's home port, seals have found a place to rest. Around 15,000 gray seals live off Cape Cod. After having been nearly wiped out some time ago, they are now protected, and their number increases steadily.

17:02

Andrea Bogomolni goes out to see a group of some 500 common and gray seals.

17:10 Andrea Bogomolni

We are at Head of the Meadow in Truro and this is an area that the grey seals have started to haul out on over the last couple of years. That's a place, where they can sit and rest and just be before they go out into the water and go forage for fish

17:27

Some of Cape Cod's residents consider the presence of the seals a problem. They fear that they attract sharks to the shores. Some of the fishermen are also skeptic.

17:42 Andrea Bogomolni

The conflict has been a perception with fisheries a lot of times that they might be eating a lot of commercially important fish, which we're finding out that they don't.

So a lot of it is educating the public as towards the perception and what's actually a problem and what may actually be a problem maybe something that is, is fear or the unknown rather than what is actually a problem.

18:04

Andrea is a pathobiologist. She studies abnormal features in physical conditions.

She is not seeking to make contact with the seals themselves – rather, she is after their feces.

18:19 Andrea Bogomolni

I became interested in seals to learn about contaminants and what was happening in our ecosystem. It's another way that we can interact and understand these animals in a better way.

Everybody says: "You are what you eat" and what better way to find you what you eat than kind of what got left behind.

18:36

Seals are bio indicators. Information about their state of health helps evaluate the state of the marine ecosystem.

18:52

Andrea is doing her research at a world-renowned oceanographic institution on Cape Cod.

At Woods Hole's laboratory, Andrea is preparing to perform a necropsy. This seal was found dead by people walking along the beach.

19:30

About 30 seals end up at the institute each year. There are many different causes of death, such as injuries and infectious diseases.

19:41 Andrea Bogomolni

One of the ways we can find out maybe what happened to the animal is looking at the overall skin, the outside of the animal. And on this animal there are some indications that there's lines present, very fine lines or impressions and because of that I think this animal is most likely incidentally by-caught in fishing gear. I think it is the number one cause of mortality in grey seals. From the stranded animals we see it's actually entanglement in human interactions. It's a big problem.

I do have to separate sometimes the living seal from what I have in front of me. So by learning from one animal you can learn a lot about the ones that are alive and healthy and happy. So that's how I see it, it's a way to help those others still alive.

The ocean is something I don't think I could live without. I think it's what we don't know, that it's almost like stepping into another planet, when you go out into the ocean, something that we have yet to discover so much about that really intrigues me.

20:59

An artificial canal separates Cape Cod from the mainland. It allows ships to pass – instead of going all the way around the cape. This vertical lift bridge was built in 1935. It provides a railway connection to the peninsula.

21:18

In Massachusetts there are numerous cranberry farms. Cranberries grow well in acid, boggy ground.

21:26

It is October, and Dawn Gates-Allen is setting off to her fields. The harvest season has begun. She opens the floodgates of her reservoir and floods the cranberry fields.

21:46

The Native Americans already used cranberries long before the Europeans arrived. They appreciated their health benefits.

21:55 Dawn Gates-Allen

Our production is once a year, our harvest is once a year. So we can make one major mistake and it could be just a fluke of nature, with Mother Nature, it could be a hail storm, rain, any type of weather conditions that can destroy our crop.

22:12

About 90% of the Massachusetts cranberries are wet harvested. They are hollow and the air inside makes them float. Wet harvesting allows to collect great amounts of cranberries in a short time. This method is a bit rough, but these berries will be used for juice and jellies or turned into powder.

22:38

For smaller farmers, the harvest is a challenge. The take turns using this costly pumping system. In this part of New England farmers have to be practical and inventive.

22:52 Dawn Gates-Allen

In Massachusetts we probably have a very stoic personality. Lots of tenacity. We have to be engineers, we have to be plumbers, we have to be just crafted in all areas of labor, because we're so unique, we don't have companies that build our equipment for us, we have to build our own equipment.

23:13

Dawn belongs to an association of cranberry growers. It gives the farmers a collective strength and allows them to improve production methods. Farmers in Massachusetts bring in more than 200,000 tons of cranberries each year.

23:30

The harvesting days are long. Friends, family, and neighbors – everyone pitches in.

23:36 Dawn Gates-Allen

We're really fortunate that we can all support each other and... pat each other on the back at the end of the day and say you did the best you could on your crop and we always feel like there is next year

23:46

The cranberry-bogs have to be maintained all year round. Dawn and her brother use a remote-controlled irrigation system.

23:57

To supply the fresh fruit market, a small part of the cranberries are being dry-harvested – they are combed off the vines.

24:05 Dawn Gates-Allen

I think the best part about my job is, I don't even think of it as a job, I keep referring to it as a lifestyle. It's a privilege to be a cranberry grower, supplying a, a fruit that has so many health benefits, that's becoming global.

24:20

A few miles further on, a replica of the Mayflower reminds of the first English settlers who came ashore at Plymouth in 1620. These religious dissenters found a new home in America and set up a colony with a democratic constitution.

This English village was recreated to bring the colonial time back to life.

24:52

Boston: The biggest city in New England and the most important cultural center on the US east coast. Boston is home to famous universities such as MIT and Harvard. And it was in Boston, almost 250 years ago, that the Americans rose up against the British colonial power. Since then, the city has been a symbol of American independence.

25:22

More recently, a small "green" revolution has been taking place on the rooftops of Boston: organic farming right in the middle of the city.

25:35

More and more restaurants like to offer their guests home-grown fruit and vegetables.

25:45

Boston's urban farming pioneer is Jessie Banhazl. Her company provides customers with anything needed for the cultivation of their vegetables.

26:00 Jessie Banhazl

Why use rooftops? Because it's unused space. When you're in such a densely populated city like Boston, there isn't a lot of available space, sometimes the back alleys or the yards are shaded by other buildings, and so a roof gives you a big, open, large amount of square footage, and a full sunlight typically, and so it's an ideal area for growing.

26:27

Boston restaurants serve more than a ton of home-grown vegetables a year.

26:42

Jessie's idea is very popular in Boston, and today Jesse is one of the city's top young business leaders.

27:01

Her company, Green City Growers is committed to organic farming in the city.

27:08 Jessie Banhazl

Food systems in the US are pretty broken, we have a lot of food-borne illnesses that start in these big factory farms plants, and so growing food, and growing food locally and growing food for yourself is a really clear solution for these issues.

27:28

Jessie and her staff provide know-how and materials to individuals and companies. This includes environmentally-friendly organic fertilizer and suitable soil, as well as customized planting-boxes.

27:56

There is a lot of unused space in the city. Jessie constantly develops ideas for new urban farms. Her biggest project is a cooperation with an international supermarket chain.

28:14 Jessie Banhazi

What's great about working with supermarkets is that they have these huge footprints, and so, you know, it's a 45,000 square foot building, that we just took half the roof of for the farm. And what's great is that they use all the produce, and so they sell the food, and then anything they don't sell, they put into the prepared food section of the grocery store, and so everything's being used.

28:37

Through her work, Jessie has made many Bostonians more aware of their food.

28:45 Jessie Banhazi

I am definitely a city person, not a... I mean, I am a farmer, but I am an urban farmer. So I live a very city life, I love my comforts and the convenience of living in the city, and I also love that you can do agriculture and live in the city

29:07

A pioneering spirit and a healthy optimism have shaped life along New England's coast for centuries.