

**[Transcript] ZM's Fletch, Vaughan & Hayley / Fletch, Vaughan & Hayley's Fact of the Day (of the Week!) - Vast Ocean Week!**

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Hello and welcome to Fact of the Day of the Week. In this episode, Fact Man Vaughn dives deep into the vast ocean, it's time for... Fact of the Day Day Day Day Day Day.

Well today's Fact of the Day is about the salty ocean. The salty ocean. The salty ocean. And where does the salt come from in the ocean? From a salt mine.

And from the shaker. Yes, from the giant, giant shaker.

A grinder. Big massive salt grinder. Yep, yep. In the sky.

Yep. And God, when he was creating the earth, was just like, little bit more. Jesus said, tell me when and God got distracted and then came back and he's like, what have you done? He's like, oh, I've over-salted the water. Yeah, classic.

Tip it out and start again. There's not enough. And so they just left it as it was.

No, it's... Today's Fact of the Day, I want to tell you, give you an indication of how much salt is in the water. 400 bags. Depending on how big the bags are, sure, that can totally work.

Yep. So it is estimated, from some of the best estimations, given that 3.5% of the weight of sea water comes from dissolved salts. So it's only around about 3.5%. What about in the black sea where you can... That's higher. That's higher. That's higher. That's a foreign sea. I'm talking about the world's... Okay. The conjoined ocean. If you were to take all of the salt out of the sea and put it on the land, 40 foot of salt everywhere, over the whole land of all the world's land.

Correct. Wait, so all the land is covered, but it's 40 feet deep. No, no, no, no, no, no, no, I'm wrong. That's 266 meters thick. It's a 40-story office building.

That's over the entire... I'm not strong. I was like, no, it's more than that. It's a 40-story office building over the land. That is insane. It's very salty. Very salty. 500 feet, 166 meters thick salt crust. If we were to take all the salt out of the ocean and put it on the land.

Goodness me. Isn't that a lot of salt? So then I was like, where does it all come from? The salt. So rain that falls on the land has dissolved carbon dioxide from the surrounding air. It's falling. It brings a bit of carbon dioxide, giving it a slightly acidic nature. Okay. Right.

And then it falls and it slowly, as it does, rain erodes over thousands and thousands and thousands of years. You're not going to be able to just next time it's raining. If you look outside next time and the rain is dissolving a rock in front of your eyes. Yeah, wild. And the rocks are made of cantaloupe. I would stay indoors as long as you can and try to seek shelter. Slowly and then it gets into the rivers and it runs into the sea. Yeah. And there it kind of stagnates and sits there and as the evaporation and everything happens in the sea, the salt gets left behind and it concentrates. That's what salt is. So yeah, it's runoff off the land. So the ocean is only getting saltier. Oh no. I can tell she's got a real attitude. Yeah, real sassy number. So yeah, that's an amazing fact about the 40 stories high of salt everywhere. 40 stories off of office building on all land. Because you know how most of the world is ocean. Yeah. And incredibly deep and incomprehensibly large amount of water. Yeah. Oh Don, I hate it. Oh, that just seemed to shiver up my spine. Yeah. And those fish with light bulb, light bulb. Yeah, when they go real deep and they're like all we found a new fish and you look at it and you're just like yeah, because it's all just a blob and eyes and then it's \$8 for a fillet at the at the supermarket. Like that seems steep. Yeah. I'll just have a tetekehe. Thanks mate.

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So today's fact of the day is if you took all the salt out of the ocean and popped it on the land, it would be a 500 foot or 166 meter thick crust of salt.

What was it going to do with the fact of the day week this week? I thought we could just go random facts. But then after yesterday's fact about how much salts in the ocean. Well, that was a staggering amount, wasn't it? Slew my mind. Staggered me. I was staggered. I thought the theme of this week's fact of the day could be just how big the ocean is. It makes me feel unwell though. Yeah, but it doesn't have a good ring to it. It's you know, like honey badger week. Honey badger week.

It was wind week and now it's big ocean week. Big ocean week. Yeah. Big ocean week. I like that. Humongous ocean week. The vast ocean week. The vast ocean week. The ocean of vastness week. The

ocean of vastness week. The vastness of ocean. Something. Vast ocean week. Vast ocean week. Vast ocean week it is. Okay. Vast ocean week. Well, let me tell you I need to introduce to you ladies and gentlemen, boys and girls, everybody out there. The biosphere today. The biosphere is a narrow zone on earth where soil, water and air combine to sustain life. We live in it.

Yes. We couldn't survive outside of it. Earth. Earth is a biosphere. Not all of earth. Okay.

Yeah. Life can occur in the zone known as the biosphere from fungi to bacteria to large animals.

There are lots of different types of life. Yeah. In the biosphere. I can tell you that the ocean contains 99% of the world's livable biosphere for every livable area outside of the ocean. There's nearly 100 of them in and under the ocean. Wow. That's a lot. So you think about everything you've ever seen. Yeah. On earth where there are people or animals or forest.

Yep. Cave systems. Everything. A live that can support any form of life. Fungal,

bacterial, mammal, reptilian, birds. Yeah. Everything. For every part above the ocean and around on land, there are 99 times that. I don't like that. Under there. Yeah. What is it doing under there? What's happening? You know, I don't like that. And 94, 94% of the earth's wildlife found in the ocean. 94% considering how much is on land. Yeah. Well, we were up here. We're like, look at that. That's fire. You're up top of a mountain. You look around and all you can see is land. Imagine being in the ocean. Well, no thanks. Yeah. This is quite, I don't know if I like vast ocean fact of the day. You wait. You wait. Vast ocean fact of the day week tomorrow. Takes a dark turn. Oh, no. It makes me feel upset. It's too big. It's a big old place.

So today's fact of the day is the ocean contains also last night when I was doing like, because I've done the whole week of facts. What have you? I felt like a teacher planning out my week. See, we do work hard at home. You just don't see it. I was boozed while I was doing it too. And then I really made me feel like a teacher. Yeah. I had a couple of couple of drinks after a hard day. We can always tell when one's had a couple of drinks on the group chat, can't we?

What did I see last night? Something inappropriate. I remember seeing somebody in the group chat yesterday and be like, well, I don't know if that's appropriate.

Oh, it was that I had not done the solid little pole slider scale correctly. Yeah, that was not. That was not. But then I hadn't done it wrong in the end things anyway.

You'll have to listen to our podcast if you missed that part of the show earlier in the show.

Yes, you will. But today's fact of the day, meanwhile, and look forward to them for the rest of the week in vast ocean fact of the week. The ocean contains 99% of the world's livable biosphere. Today's fact of the day, we continue on our vast ocean fact, themed fact of

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the day week. It's making me feel very uneasy. Yeah, it's huge. Sometimes you look into space and feel insignificant. Well, you don't even need to look that far. You can look right here on Earth at the vastness of the ocean to feel insignificant. Today's fact of the day is the world's largest waterfall is underwater in the ocean. That's technically not a waterfall though.

Yeah, the falling is just constantly moving and falling and rising and all sorts.

It's a waterfall by definition. And then Denmark straight in a gap between Denmark and Iceland, there is one of Denmark's islands, Greenland and Iceland as a Denmark state. That's why it's called the Denmark straight. There is a waterfall called the Denmark straight cataract, like in the eyes. Yeah, cataract. Now, due to where these waters meet and the difference in temperature, when these waters collide, the cold one falls, the warmer one doesn't. Now, it also happens to be over what would be if it was above ground, a waterfall like feature, a huge drop. Yeah. So this waterfall is the largest on Earth because the water, when it goes from the surface and it's cold and it drops down, straight drop three and a half kilometers. Yeah, but that's not a waterfall, is it? That's just the ocean. It's just the ocean.

It is. It's not splashing on rocks. Well, it is. When it hits the bottom, it's like, there's video footage of it. And when it hits the bottom, it does act like a waterfall because of the temperature difference in the water. Yeah, right. It is three times the height of the Angel Falls in Venezuela. That's the highest above one. That's the beautiful falls that by the time it gets to the bottom, it's like a rain because the water's falling so far in Venezuela. And the amount of water going over the edge is 3.2 million cubic meters per second, which is more water than exits out of the Amazon into the Atlantic Ocean and any other waterfalls on Earth. Right. There's more water going over the edge and falling. It's a straight three and a half kilometers straight down in the form of a waterfall. That's too big. Yeah.

And not technically a waterfall. Definitely a waterfall. I mean, you can argue with me.

That's fine. I'm but the messenger for geologists who have confirmed it. I'll say geologists are wrong. If you were under there and you were to stand under the waterfall, are you getting wetter than you already are? Yeah, she's got you there. She's got you there. But when you're standing under a waterfall, there's going to be a point where you have a waterfall above land where you've met reached maximum saturation. At that point, does that waterfall cease to become waterfall?

No, I think you keep getting wetter and wetter. No, you're going because you'd reach a point where you were as maximally saturated as you possibly could be. Depends if you put more coins into the fountain. Yeah, it does. Water fountain. The water fountain that keeps good. Is this fountain?

Is this waterfall grant wishes? I don't know if anyone wants water. That's not a waterfall.

You're thinking of a fountain. You're thinking of a wishing well. I'm thinking of Trevi Fountain.

You're thinking of a fountain. Very, very different. So the water is 200 meters wide and 200 meters thick. So just this square column of water careens over this edge and just straight down for three and a half kilometers, making it the world's largest waterfall. I feel lucky. It's too much.

It's a lot. There's a lot happening down there. So today's fact of the day is the world's largest waterfall, both in volume and height dropped, is underwater.

Just every time you say vast ocean, I get a chill down my spine.

The vast, vast ocean. Two parts of the day's fact of the day.

Is it where MH370 is?

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Is it in the vastest? Like still haven't found it.

That's in the vastest. That's in the vastest.

Oh, we've found a planet in 120 light years. Or how far away was that planet?

All these light years away. We've spotted a molecule. Bullshit you have.

It's like a molecule's tiny. Yeah, find that plane. Yeah, we'll find some other stuff.

Yeah, like everything. Yeah. Like what did you just, didn't you lose something recently?

It's gone now. You had phones. Oh no, that was your cable.

No, you found that. No, that was the cable. My Apple Watch, I left a new Plymouth.

And you lost that special cable. I lost my phone charger.

Oh yeah, I went on tour and I didn't bring my charger for my...

And actually that maybe, I was just, our friend Mike's misplaced the key.

So I'm just like, why can't we find these things?

Before we're going and looking at molecules, 120,000 light years away.

Oh, whatever. Anyway, anyway, anyway, the vast ocean is this week's theme for fact of the day.

This is just a little bit of a taster because this is a common fact. Everybody knows it.

The deepest canyon under the ocean is the Challenger Deep. It's the deepest known part of the ocean, the Mariana Trench. Is this where James Cameron popped a...

Yeah, he's gone down there. He popped a sub down there.

So the deepest canyon under the ocean is taller than the tallest part above the ocean.

That's a little taster. That's a little appetizer for today's fact of the day.

Also that same Challenger Deep, the same canyon, is roughly as deep underwater as commercial airlines fly above the water.

You think when you're in a plane and you can look out and you can see how far above you are, above the earth, that's how far below the surface.

Oh my God, no thank you.

The Challenger Deep goes. Again, people might know, but if we're talking mountain ranges, if we're talking canyons, I want you to know that today's premium fact of the day,

the one that you... This is the mains. The world's largest mountain range is underwater.

I know. I know this.

The Mid-Atlantic Ridge.

Has it got snow?

As a mountain, we know it's underwater on.

Does it have a cheer lift?

Yes, it does.

How are we getting up?

Yes, it does. A cheer lift.

Is it a four, a quad?

What's the day pass for the cars?

It's a gondola. You get in and you shut the door behind you.

Oh, day passes of snuck up.

Oh my God, so expensive.

Yeah.

And then the weather closes in. You've only just started.

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You want to waste a month.  
Separate fee for the cheerless. How else am I going to get up there?  
Yeah, you've got to hire your gear as well.  
So make a day of it.  
Do you need chains for the wheels to get there?  
Get up there very, very early.  
Do you need to put chains on your boat?  
To weigh you down.  
Yeah, to weigh you down to get to the bottom.  
Actually, this mountain range, getting to the bottom is the challenge.  
It is 65,000 kilometres long, the Mid-Atlantic Range.  
And it stretches from up in Iceland all the way down,  
between Europe and Northern America,  
and then through the middle and it goes right down to the bottom.  
It's sort of like the, it's considered the baseball seam of the world.  
Yeah, awful.  
And it's when the plates that are pushing apart  
and when those continents spread from Pangea,  
the cool thing about it is if you look at a map drawing of the ridge,  
it is actually like the joining seam from where Africa pulled apart  
from America and Europe.  
Oh, yeah.  
And it's almost the exact same line.  
And it is the longest continual mountain range on Earth by a mile.  
Lucky that happened.  
Otherwise, there'd be zebras and lions all over America.  
Yeah, God, what did they do?  
Oh, they got the guns.  
So they'll be fine.  
They'll just shoot them in there.  
They'll be absolutely fine.  
So today's fact of the day on vast ocean week  
is that the longest mountain range on this planet of ours  
is completely underwater.  
Today's fact of the day on vast ocean week.  
Oh, my God, every time.  
The dark, vast, cold, silent.  
Dark.  
You've ever thought about how quiet it would be?  
I imagine it's like this.  
No, it wouldn't be like that.  
Because when you hear audio from under the ocean,  
it's always got like a...

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That's only if there's like a boat or something.

Yeah, I'm talking real deep.

Like, you know, whale noises?

But space has a noise.

No space has no noise.

No space has a noise.

Space has a smell.

No noise.

Noise can't travel on a vacuum.

It's not vast space week.

Okay, well, I'll save my thoughts for vast space week.

I don't want to do vast space week.

That's too vast.

Do you see that NASA astronaut's got the record now for that?

You see that nasty astronaut?

I see that nasty astronaut.

Up there talking smack that Venus.

Set the record for the longest in space.

The longest time out there, continually.

Well, because we talked to the guy who previously held the record.

Yeah, we did.

That's right.

Kelly, Colonel...

Kelly Rowland.

Kelly Rowland, yeah.

She went up there after Nali didn't reply to her excel spreadsheet.

And she's been up there ever since.

Don't forget to book your Friday's.

She will not come down while Beyonce's on tour.

No, no.

Vast ocean week.

The final fact of this week is that the oceans are the largest museum in the world.

Oh, yeah.

Because it's got the Titanic.

It's sufficient.

It's not.

We have to pay the interest.

Yeah, hell of it.

Admission fee is your life.

Yeah.

The last people who try to get down there are anything to go by.

It is believed that the ocean has more cultural artifacts than all of the world's museums combined.

Yeah, totally.

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Well, they lost city of Atlantis.

Yes.

Oh, yeah, of course.

All sorts of underground cities.

That's mythic.

No, it's real.

Hello, they haven't found it yet.

But when they do, it's real.

You get a grip, bro.

There are 3 million, according to UNESCO, 3 million shipwrecks unaccounted for on the floor of the ocean around the world.

Well, there are people that spend their lives hunting treasure from old shipwrecks.

100%.

Yeah.

And all they'll have is like a rough idea of where the ship was heading like 400 years ago, loaded up with Spanish galleons.

Oh my God, yes.

And they hit, they sunk and they never turned up.

And they're like, let's go find it.

The pirate treasures, all sorts of things, as well as entire civilizations that have ended up underwater.

Yeah.

Did you know, for example, a city was discovered off the western coast of India that no one had any record of.

Oh my God.

A city under the sea.

And it carbon dates to 9,500 years BC.

And there's no like.

How did they get into this?

How did it get into the sea?

Changing sea levels.

No, changing sea levels.

Like people were like, oh, this seems like a great place to build a city, build a city.

And then the ice caps melted and it went up.

And they were like, wasn't a great place.

No, we'll be saying that about a few cities around here.

So anyway, that's a.

And Cromwell, old Cromwell.

Yeah, but that's not a sea.

They built a dam, didn't they?

Yeah, they built it a lot.

Yeah.

But yeah, if you think of every, even diving sites of well-known archaeological sites,

