My name is Interviewee Interviewee, I started fishing when I was seven with a Hawaiian, I don't know if you know what a Hawaiian is.

A Hawaiian sling.

Hand-held. I've always lived in the north, two minutes from the beach, always, and that's where I started fishing. My dad wasn't a fisherman, but he was the one who taught me; he knew how to fish, obviously, but with a harpoon. And I caught the bug after a few days of camping; that was when I was seven years old. From then on, I continued watching videos and things. I met Abdiel around the age of 11 or 10, at a party my cousin had, and that's when I started fishing and continued learning. I've been fishing on the seabed, I tell you, since I was 11 or 12 onwards. That's when I went on a boat, and from then on, I've been seeing the changes on the seabed. I'm 21 years old; I've been on the seabed of Vieques for almost 11 years, and the change has been quite noticeable.

What have you noticed?

Especially in the north, fishing has decreased a lot, we have to go more and more towards the eastern tip to be able to catch fish, from the town more or less to the last house, many miles further up, that's where we can start to catch fish like the spiny lobster (Panulirus argus), now the spiny lobster (Panulirus argus) hardly even nests here on these coasts, there are many changes; you always see a lot of it, as the parrots say.

The parrots.

The parrots are here, they're the ones who take care of the reefs and all that; you can hardly see the parrots in this area anymore. The seabed looks quite brown, there are many different changes.

[00:03:04]

And what about corals? Are there corals?

There are few corals, and they are quite far from the coast; on the coast itself, well along the coast about 120, 130 feet a little outward, that is dead as such.

Let's go back a little. You told me you learned to fish when you were seven, and that you learned by watching videos and by being with Abdiel. You started fishing. What kind of fishing do you do?

At first, like any beginner, you want to catch everything you see, but then as I gained knowledge, I started to acquire fishing as a class, a little higher, class A, we looked for the sama, (Mutton snapper, \*Lutjanus analis\*) the lobsters, the fishing that produced us and that motivates us to keep going, but over time this has- We want more fishing, they fight to pay for it or they don't want to pay you what it is, or you have a lot of fishing and they can't buy it, they are a pro and a con, and that's why we have decreased fishing more and we have had to look for more work. Leave fishing and settle on the land because fishing is no longer supplying us with enough that we need to continue going every day.

And what are you doing on land right now?

Well, right now I'm working on something, and I'm a tour guide at Vieques Bioluminescent Bay, and I make do with that. I go out and fish whenever I can because it doesn't give us enough to live on anymore. I have a son and all that, and you know what I'm doing.

And you plan to teach your son to fish?

Yes, always, imagine. We live two minutes from the beach. I know that as soon as he sees me doing it, just like I saw my dad do it, he'll want to go with me.

You tell me you also learned from Abdiel. The type of fishing you do is-?

Abnea.

From abnea. It means you go in free-diving, without equipment.

On the lungs, you have to have greater concentration, practice, which is not the same as going into a tank and peeling the bottom, and come on, we also have to, like an exercise, and all the time. And it's not the same as going into a tank and catching five lobsters; we have to go down and look for those lobsters while holding our breath, fight the lobster (Spiny lobster, \*Panulirus argus\*) in the cave, pull it out with the lasso without hurting them. These are things we try not to break the lobsters' antennae so they don't damage the cave; there are many things that not everyone is aware of.

How to prevent damage to the cave?

Because when you leave a-

An antenna.

An antenna, no more locusts are introduced.

So, who taught you how to fish with a venomous fish?

No, to abnea, well yes because one doesn't have that equipment, one has to hold one's breath, and one learns little by little, I was looking for abnea exercises, how to do them so that before entering the water you control your breathing more, things like that.

[00:06:08]

And you looked for that?

On YouTube, all of YouTube, stuff like that. I was learning about fever—you're a kid, you get fever, and you can hold your breath at home, you record minutes on your phone, things like that. And over time, I started applying it in the water, or rather, concentration, because you use concentration a lot to be able to work without a tank. Imagine, we go down 60 feet. Abdiel goes down an exaggerated amount, he climbs 80 feet, 85 feet—he's the master.

There have been no accidents?

Never, because it is tankless, there are no bubbles there.

No bubbles, but you can have a blackout.

It depends. We also have to control ourselves, we also know our bodies, we have to push the limits, but we know how far. Not to the limit, we know ourselves. You have to be aware that, if you're going, you have to save your breath to be able to climb, and if you're running out of breath to be able to climb, you have to concentrate so as not to despair, until you reach the top.

Is there no one else in your family who fishes?

Nobody.

So it hasn't been a tradition that has been passed down from hand to hand.

They've had boats as such, they've had launches and things, but not fishermen like that.

You're telling me that you've realized that the seabed has been damaged, that it's brown, that there's almost no fishing left. So, given those circumstances, how do you see the future of fishing, perhaps for your son, for other young people here in Vieques?

Seafood, the other day, right now, what is more expensive is the conch (Queen conch, \*Strombus gigas\*) than the lobster, (Spiny lobster, \*Panulirus argus\*) imagine.

The queen conch (\*Strombus gigas\*) is closed.

You see, when the Queen conch (Strombus gigas) ban comes, what are we going to do? We're going to have to catch spiny lobster (Panulirus argus), that's why it has its pros and cons, that's why we've stopped fishing as much because sometimes it was enough for gas, not even two or three dollars, and what did we gain, we lost. Do you understand what I'm saying? We can't just throw ourselves onto any shore. If it were said that we threw ourselves onto this shore, we caught the fish, we're leaving, no, it's not like before. Before, there was fishing everywhere, you threw yourself onto the shore and you swam from here to there, and you saw the lobsters.

With the little antennas.

With the antennae, you could see the parrots, the conures, the mutton snapper (Lutjanus analis), and the rufous-tailed squid; those are a little scarcer now; we have to go to the unpopulated area.

Do you see a future for fishing?

In Vieque, if they put their minds to it, there could be a future because we're here in a sea rich in fishing, but the coast itself, we as fishermen, would at some point have to move our boats to our sister islands, or a little further upstream. But as such, it's becoming increasingly difficult. We'll have to wait and see.

Don't you sit and talk with the old fishermen?

The only one I talk to is Adbiel about things like that.

[00:09:08]

And not an old (grunt donkey, \*Pomadasys crocro\*) fisherman.

And not an old (grunt donkey, \*Pomadasys crocro\*) fisherman.

Is it difficult for your community to get to a fishing spot right now?

Yeah.

Because?

Because there's no land access. The best fishing spots are at the naval base.

And they can't get in?

Just by boat, and if you use a GPS, like an app, it doesn't let you go to a certain one because it says it's restricted, that you can't search properly like the key, look at the GPS, look, we're going to such a key, to such a bank, no, because there's a certain limit that the GPS apps don't let you go to because it's restricted.

But you can enter it.

Yes, we have access.

The signal is restricted.

The signal, because it's supposedly a naval base. The points we have up there are because we know. We connect, for example, we're here, there's a point of land here, another point of land there, connect this point with this point while you're at sea, if you separate another time, well, you came back with this, more or less, when it's clear we see the points, we give them some code names that only Viequenses know. Look, such a key, there we have Cayo Cucaracha, which is a key that when the tide is low, it's there, but when the tide is low, you pass over it, and you break the boat; you have to do that here to know the keys, but you get into a GPS, and you can't have access as such, which are the richest fishing areas.

These are the difficulties your vessel faces when extracting overland. Now the question is, are there policies issued by the Department of Natural Resources, the Caribbean Fishery Management Council, and NOAA? Do you feel they affect you in any way?

Sometimes.

Do you know all those agencies?

I've heard from some, obviously from Natural Resources, that they control the water and the land, the reserves as such. They also have their pros, because the closed season also helps; closed seasons are necessary to prevent overfishing, but sometimes they affect us, because if we don't catch fish, what are we going to sell? That's where their benefits come in, they benefit the fishing so that there continues to be more, it continues to reproduce, but for us, who are the ones who benefit, who lived, because we can't live off fishing anymore, with the reality here in Vieques, it's very difficult, unless you have a trap, or a tank, and we don't like having tanks, we can't go for the fish that are in the deepest part. That's where it hurts us the most, because we don't use tanks, and those who have tanks don't care, because you dive 80 feet, 70 feet every day. We don't have that accessibility to be able to do that every day. That's why it affects us more, the marine life closer to the shore, because for example, in a day the deepest we go is 80 feet, and him, I can't get to 80 feet, I get to 50, 40, 60 feet, maximum, I don't go beyond that. That's where we see what affects him more than other fishermen, because other fishermen have tanks, they look for deeper fish.

[00:12:43]

But the reality is that federal laws don't affect you, because you can't lung fish in federal waters because of their depth.

Understand.

So, it's the state regulations. You already told me, I asked you, if you've noticed changes in the marine environment or fish species, do you think climate change is related to those changes?

It's like everything, when a hurricane hits, everything changes, everything, the land, the sea, many things move, the water channels that were closed open, everything. When bad weather hits, we always see the change in Vieques, at least in Vieques, quite brutal. When a hurricane hits, the shore gets dirty from here to there, like crazy. Why? Because many people don't understand that Vieques has many water channels. What happens is that most of the water channels are, like I said, from where you can't go, over there. How do we know that? Because we're from Vieques, and we walk all along the shore and walk for hours and hours. On a rainy day, for example, on a rainy day, I walk from here to the north, and I continue walking as if we were going east, and you'll see different rocks, what they call rocks, which are like-

Holes.

The little water channels. The channels that flow down everywhere, in droves.

Through the drains, and those drain waters?

They come down from all the hills on Vieques and go out to the sea.

And that creates a sediment problem for you?

That takes over the seabed from all the shores, during hurricanes, and all the logs, the sand, the leaves, the coconuts, all of that goes down the island, but it's normal, because when hurricanes pass, everything goes down, and it affects, because that water turns brown for a while, the seabed changes, the sand goes down, it rises on the shore.

The last one that passed through Puerto Rico was the tropical storm, whose name I can't remember right now. And it came down near Vieques, right?

Yeah.

Do you think that after Hurricane Maria and Fiona, something had recovered, and then now with this tropical storm it came back again or not?

Honestly, that storm didn't have that much impact here on Vieques. It was a little rain, it blew in the early morning, quite a bit, but it wasn't a big deal.

So, after Maria and Fiona, was there any recovery, or did you not see any recovery?

In María, things got ugly. Obviously, like everywhere else, and right now, everything's recovered because even the bioluminescent bay in María was affected. It didn't shine for many months, the water turned brown, the mangroves died, but everything has been improving little by little. And in María, many caves near the shore were covered up, because so much sand and so much stuff was moved, because there's a lot— And now I'm realizing that, in the north, it's coming back again, like, carrying the sand away, and all the 10-foot and 20-foot caves that weren't there before are coming back.

[00:16:05]

And what about sargassum?

That's always been the case here. The problem is the garbage that comes from the other island. That's something that isn't talked about much in Vieques. A lot of garbage comes here from the other islands, to the north, almost always to the north here. Boats, flip-flops, ropes, lots of ropes, lots of them, the nets, the traps, the small traps that aren't used here, they're like fishing nets. You walk all over the north, where there are almost none, you find rope buoys on the shore, chopped traps, shoes, lots of shoes, and you know that's garbage from another island because the boats themselves, which come with their labels, are products that aren't sold here, and you read them, and they say "made in San Tomás" or "Santa Cruz," from different places.

Following the line of global warming. If it bothers you, we'll put it down, but I need you to speak up so [CROSSTALK] Following the line of global warming, have you noticed, you're 21 years old, you've been fishing for 14 years, the water temperature, due to global warming, do you feel like it's changed?

Sometimes the water is very warm on the shore, but at the bottom it remains cool.

It stays fresh.

And sometimes it gets freezing, cold.

But I guess that's the season now, when Christmas comes around.

The same, all the time, the water on the shore is warm, and at the bottom it gets cold.

Curious, very curious, because I have heard fishermen say the opposite, that they feel it hot at the bottom too.

Cold, really cold, the deeper the colder, but I imagine that's normal.

Sure, because the sunlight doesn't reach it. Have you come up with some kind of strategy, something to cope with what's happening with global warming that's affected you, funds, hurricanes, all of this? Do you have anything that you do, that's yours, that you say, I'm going to do this because the fund is white, or it's brown, or whatever, but is there anything I can do to improve this?

Well, we try not to kill too many hogfish—a lot, what's it called? We leave the small lobsters a lot to help them survive; and the hogfish, because that helps, it's life.

What does the pigfish do?

They are the ones who maintain, I am a little bad with words-

The control?

Where all the marine life is, the stones as such.

Corals. Coral reefs?

The reefs, we call them reefs. The pejepuercos, those who know, they eat that, they maintain it, they clean it, they polish it, they give it its shape, and we, well, as if it were literal, we don't even pay for it, that's a catch, you have to catch a quintal to get anything for the fish, (Blue Marlin, \*Makaira nigricans XLII\*) because here the fish (Blue Marlin, \*Makaira nigricans XLII\*) is, if I'm not mistaken, at three pesos a pound, something like that, very weak. We don't catch fish, we are not fishermen who go out to look for a lot of fish, (Blue Marlin, \*Makaira nigricans XLII\*) we are more of a lobster fan. (Spiny lobster, \*Panulirus argus\*)

[00:19:28]

But then the lobsters, are you buying them?

They buy them. I haven't fished for about four months now, because I had to get serious about having a son, and the money isn't enough for what I need.

How old is the baby?

The baby is one year old. I had to get serious, and well, I sometimes go with Abdiel, but it's difficult. Sometimes we went to Tomás's place in Culebra. Tomás paid for our catch there, he'd take us to the little dock and pay for the lobster (Spiny lobster, \*Panulirus argus\*) there because he knew us, things like that and nothing, but here in Vieques, Jorge bought our catch there, he paid us well for the catch, or the restaurants, or people Abdiel had, but as such, going to the fishmonger, look, I have this, no, because for that you have to go with a lot to make good money. Because here, the ones who enjoy fishing are the ones with the traps; The one who makes traps is the one who gets fed up here, because they go, get up in the morning, lift their trap with their winch, take out the lobster, (Spiny lobster, \*Panulirus argus\*) we go to the dock because we already have today's catch.

But who do they sell it to?

At the fishmonger, remember, they have drones, full drones, half drones, they bite, they bite the drones and put in—about half drones full of lobsters. They buy it from you, let's say, for nine pesos, eight pesos, and the fishmonger resells it for a little more and they get it. But they catch a lot. We don't; we catch four, five, six, ten lobsters a day, of good size, and that's where we make a little bit of money, which isn't the same. They catch everything from the legally available size to the largest.

The biggest ones. Are you the type of person who tries to educate themselves? I get that impression, because you told me you learned about abnea from YouTube videos. In the same way, do you seek out information about climate change and how it affects you?

Honestly, not much.

Not much.

But I am, I know that this has a big impact, and it's noticeable in the heat, sometimes the water itself is losing ground, and it's being noticed.

What do you mean by that?

It's kind of eating away at the shore. The shores are getting closer and closer, and over the years, anyone who lives here realizes this, because they know that the shores used to be, as I said, very sandy, with plenty of space at all times; right now, you go north and the water is almost hitting the houses. Why? Because the sea is rising more and more. I imagine that's due to global warming, which, if I'm not mistaken, is melting the-

Poles

The glaciers, the poles, and all the seas are rising, the sea level and all that.

[00:22:32]

Do you feel well informed about what climate change is?

The truth is, since I haven't paid close attention, other things have come to mind, and I'm not well informed.

Would you like to receive more information eventually?

Yes, information is never bad.

And that you can pass it on to your child as well.

Exact.

What kind of support or resources do you think would help you—whether from the government, scientists, or your people, from the community—do you think would help you better adapt to the effects of climate change? What kind of support or resources?

As such, how about you repeat the question? Because right now, climate change here in Vieques, if we can say, hasn't affected us fishermen that much. It's more on the coasts where fishing isn't allowed, but beyond that.

But you told me about erosion.

Yes, exactly. How can I tell you? Because we're so used to the lack of fishing here that we're already leaving, it's something normal for us, but it can be fixed. I don't know if it can be fixed, because right now it's a reality. All the construction is damaging the seabed, and those houses that are already built, what are they going to do, demolish them? It can't be done, because those houses are already built, and they're close, they're right in the maritime-terrestrial zone, they're literally right there on the shore.

Inside the sea.

It's somewhat illogical to ask why the northern seabeds aren't working. It's because the Americans have built houses from the cemetery there to the last beach here, where the restricted area is. That's why there's no fishing in the north. It happens in the south with the seawall, everything they put on the seawall, the Blok Hotel, everything they put there affected it. Before, when we were kids, we used to go and always had the urge to look for little fish, and now you go and under that pier there's nothing. When you go to Crash Boat, there, and you see the fish and everything, that was the same in La Esperanza, and there's nothing. Nothing from the pier to the other key, and all you see is a brown bottom.

In this case, this has nothing to do with climate change, but you are talking to me about poor planning and permits granted to build in an area-

Exact.

To build in an area where they should not build.

That damages the ecosystem, because that goes to a rock, fish enter that rock, as sediment came out and all that, when it was sealed, what happened, the marine life died there, that pulp of La Esperanza.

And are there sanitary discharges?

I don't know, supposedly there aren't any, but we'll have to verify that. There are some in the village.

In the village?

In the town, there is water. Everyone knows that, but it's something that isn't talked about. If you get off at the dock now, you'll notice the bridge. All the water that flows from the town enters that bridge. When it rains, that bridge connects, and the entire town's water turns brown. And that's a long time coming.

[00:25:51]

And it smells?

And it smells, and they float away.

With water?

And there's even an aimán there and everything, and people haven't done anything.

And that goes out to sea?

Al mar.

That has nothing to do with climate change, it's just that there's a rain problem in the town that isn't being resolved.

For years, that gem has depth as it is.

What role do you think fishermen should play, telling scientists, explaining to scientists what's happening with climate change? Because you go out to the water, and you're watching it every day, and scientists go from time to time. We saw this with government agencies. What do you think local fishermen should do to help these agencies, or the agencies as well, to help local fishermen, on both sides?

Good question. I'm telling you that the fishermen left here are few, it's a reality, because what do you know, there are no more than 30 fishermen here in Vieques, and those who remain are over 40, 30 years old, they are adults already, who are used to the same thing. Those of us who have to stand up are the young people who come now, but since they are not informed of everything that is happening, they are oblivious to many things, this is not talked about, who is going to stand up? Nobody. The old fishermen already have their routine, they get up every day, lift their traps, or jump in with their tanks, do their fishing and go home, because it's already done. But the young people are not informed about any of this, and this is going from bad to worse. They need to talk a little more about the case. If the agencies want to do something, they should give a lot of talks, explaining, "Look, this is what's happening with the funds. We have to do this." They need to look for different possibilities, ways to improve, because fixing things can't be done anymore. It's about improving a little more so that these funds can last for future generations.

But then in this case, what can fishermen contribute to the agency?

Well, the fishermen should also unite, if they can, with the agencies, and help and support, because since they are from here, the voice from here has more weight than a voice coming from outside and telling you what it is, because what are they going to say? So-and-so came and said this, but so-and-so comes with someone from here and tells you, look, that's true, this is happening, because we see what's happening every day, we have to do this, we need help and there we can act as a collective, and help.

Do you think there's a future, or are you worried about the long-term sustainability of fishing, considering that we know climate change is accelerating at a terrible rate and right now we have the hurricane that's passing or is going to pass through Florida? Are you optimistic about the future or about climate change?

[00:29:10]

Fishing can be improved; we need a lot of help, because this island has potential, but it doesn't get the attention it needs.

That's why, but thanks to climate change and coastal construction, the seabed and coral reefs have been destroyed. How will life ever return?

Preserve what remains, that's what I want to tell you, we must preserve what life remains and provide the help that is needed, and sometimes people fight because the base itself, the base cannot be entered, but that, although people do not believe it, has helped a little, I'm not saying that the base is right, because it is also our lands that we have that we cannot enter, but since there is no civilization as such on the way there, that is why we have fishing, so that they give, I understand that the day they give away those lands, they should prohibit houses on each coast, the day they give away the lands up there, Why? Because thanks to that, when there is nothing, nothing, the virgin land has been maintained, and the seabeds up above as well. Obviously, those seabeds are also somewhat damaged because there are bombs. You jump into the water and you could find a bomb, but anyway, the seabeds themselves have taken care of everything that has fallen into the sea, making it part of the seabed, it hasn't affected it as such. It's not like you're going to see a bomb and you're going to see all that, you can see a bomb and underneath the bomb is the spiny lobster (Panulirus argus) stuck there. Do you understand what I'm saying? That those seabeds as such, since 2000, which I think was when the Navy left, 1999, have remained pristine. There, the spiny lobster (Panulirus argus) has been walking from the seabed, reaching the flat, hiding, not here. I don't know what the heck the spiny lobster (Panulirus argus) has to do with the north, it seems like they arrive here and go up.

That's what's called—Let's think about one thing, let's go back to Maria, to Fiona, how did the community prepare for those disasters, how did they react once the disaster happened, interaction to protect livelihoods, which is fishing, how did the community work, if they worked at all?

Here in Vieques, Vieques is a town a little bit like it used to be. Do you know what that is?

The same as before.

Just like in the old days. Here, everyone helped each other. Maybe they gave them away, everyone in the shops gave them away. Everything that could have been used as a refrigerator. Here, if you fished, they obviously bought your catch because we were already eating rations. Here, nothing arrived, the ferries, there was no gas, no ice. Everyone was fishing, selling their catch, whatever was caught, that's what they caught. I'll tell you, but there was no closed season. It was like that. Everyone needed to eat. Whatever was around was what we were going to catch. And the catch wasn't lost, because obviously there was no freezer. Everything you caught, you ate there, or you gave it away so they could eat it. There was a lot of help from everyone, but it was difficult because we were without power for almost a year, imagine.

[00:32:42]

We, I live in Cabo Rojo, and we were in a similar situation. So, I'm asking you, during the pandemic, which has nothing to do with climate change, or funding, or anything, during the pandemic—

Fishing has fallen off. Because who catches fish for the fishmonger?

Business.

Businesses, if businesses don't buy, the fishmonger can't buy.

And you didn't go door to door selling?

No, sometimes we'd stop in town with a couple of coolers, things like that, but during the pandemic, everyone was scared, COVID, this and that. We just stayed calm. If we went fishing, we ate the catch. We eat a lot of the catch here in Vieques. We fished and ate it, because they don't pay for it. We go fish and eat it. We give it to the family. Here, my mother has her business, where she benefits. Sometimes we went, and if there were three of us fishing, we gave the catch to Abdiel so he could take it to his mother's business. Sometimes we went there and ate it.

And they gave it to her?

Yes, we gave it to Abdiel, because we are good-

Joined.

Imagine, we've been fishing for years, back then there was no one to buy it and if it was to get lost, it would be better if mom took it.

You told me that you've been doing odd jobs, construction.

I'm a lucky guess, and I'm a certified industrial welder, which I studied.

And you work on it?

I worked on it for a while, but like everything else, there's no work for it here in Vieques, so I stayed calm.

So you work in construction, in Puerto Rican homes, in foreign homes?

It varies, because he's a contractor who pays me, and I work there every day, five days a week. I have my holiday, and he works with an American, from Vieques, with whatever comes up; they're projects.

Sure. Do you use social media to post about your catches and promote yourself?

Yes, I use Facebook a lot, I have a lot of people, and sometimes I say, I'm going fishing today, order me, because we put it like that, order whatever you want, because it's not like we're going fishing, there are times when we go fishing and we put it and nobody buys it. Look, today we're going fishing, and sometimes people suggest me, I want four lobsters, five lobsters, snails, conch, depending on the season, and that's where the catch is sold. But like I said, fishing for blue marlin (Makaira nigricans XLII) isn't worth it.

It is the queen conch (Strombus gigas) and the spiny lobster (Panulirus argus).

Conch, (Queen conch, \*Strombus gigas\*) lobster (Spiny lobster, \*Panulirus argus\*) and snails.

And are there any restaurants in Vieques that sell fresh fish?

Yes a lot.

Like which one for example?

There's El rincón del sabor, El banana, Duffy's, and one called El Tin Box. They're all different people who buy from the same fishermen, because Americans always think they're in the Caribbean, on the little islands, and want to eat fish. (Blue Marlin, \*Makaira nigricans XLII\*)

[00:35:48]

Did social media help you recover after the hurricanes and the pandemic, so you could sell at that time, or were you not using it then?

Yes, because people would always write, "Who has snails?" "Who has conch?" "(Queen conch, \*Strombus gigas\*), "Who has spiny lobster?" "(Panulirus argus\*)" And sometimes you'd have your catch from the day before or things like that, "I have this here, I have that, we can struggle; you struggle, even though it's not official, you struggle with whoever it is, and you struggle."

But it's not like you have it running all the time.

No, because it is not a permanent business as such.

Perfect. How do you imagine Vieques will ensure that fishing will continue robustly for future generations? How do you imagine they can do it?

If there were a good market, I'd say they come weekly to collect the fish, so the fishermen can take it to them, and they can find vendors in other places, because it's like everything else: where something is abundant, it's not worth as much, but in other places, the fish has to be worth money, in places where it's difficult. Well, find a way to take all the fish that isn't sold here or somewhere else to see if it can be sold, or to the big island itself, because there are thousands of businesses there. Create a system so that the fish never stays in the tank. If they do that, at least something like that, they'll even bring in more fishermen.

Fishermen.

Why? Because people will join together, the fishing is safe, the kids are safe, what you have to do is fish it, because that's the thing, go fishing, get up early, throw in the boots, put in the water, put in the boat, catch it, plus you also have to arrive tired after fishing to sell it, you wouldn't do it if it were a lake, I'm sure I'd get up in the morning at four in the morning, by five I'm in the boat, by six we're arriving at the fishing spot, the sun goes down, we're heading for the water, at 11:00 I'll leave with my catch, so I can get to the port and sell it. It's not like getting to the port to see if so-and-so will buy it, let me call so-and-so, or the fishmonger, if he's in a good mood, will buy it, things like that, you don't do it, there's no struggle to do.

Are the young people here in Vieques interested in becoming fishermen? Are there girls fishing, girls fishing, young men fishing, other young people?

No.

They are not encouraged to fish.

No, it's like a hobby, that's more of a hobby, fishing, here you can't make a living from fishing, like we fish, unless you get a tank.

What does your dad tell you about your job, and what does your mom tell you about your job as a fisherman?

At first, they supported me, but when the reality of the lack of money began to sink in, they spoke to me clearly: "Look, go to work because you're not earning anything." I had to go to work.

[00:39:04]

Do you miss fishing?

Sure, that's my thing, if they let me I fish from six to six.

Are there opportunities here for young people to learn about fishing, whether through family learning, schools, or community programs?

No.

What happened to Abdiel's school?

Well, Abdiel is in the process of doing that, he's getting involved. I told him that if he needed workers, I would also get involved, but like everything, it's a process, but he's standing, he's eager to get going.

Right now he has no students.

I don't know, I don't think so, because he's making some adjustments, going to the boats, the permits, a lot of things. Another thing, we had— Because that's another thing, we have resources nearby, we have Culebra, we have San Tomás, after San Tomás is San John.

Holy Cross.

No, Santa Cruz, for San John, the small islands, over there, for example, many fishermen here store their catch in ice and salt water to last them for many days, and they catch, they have a really brutal catch and set sail on a Friday to go there to San John, if I'm not mistaken. And in San John, they pay you, there in San John, they buy it from you up to you know, whatever it is. And they go there, sell the catch, and go down to buy food and come back comfortably, but, to get to San John, you need two good engines with a good boat, which isn't that easy either, plus you have to go through customs, it's not that easy. But the other thing we have is to collect all the catch and take it there. But if we're talking about gasoline, it's difficult.

It's not easy.

It has to be a catch you catch with a pot, and you've spent a week there, and you have 500 pounds of lobster, and you've caught them down, and you calculate the gas cost, you can do it in numbers. Bring in a catch that you name, and you recover the gas, the fishing, and the money. It varies.

You tell me you don't communicate with the elders to acquire knowledge because fishing has declined, but the other fishermen who are trying to start, however few there may be, how do they acquire fishing knowledge? Does it come to them because they have a relative, does it come to them because they sit with the elders, does it come to them because they see them as uneducated, does it come to them because they know another young person who is teaching them to fish? How do they acquire knowledge?

Almost always, those who fish here fish with someone else. Almost always, the person who goes fishing here doesn't know why so-and-so invited them, that guy was going fishing and he left, so we're going there by the way. I've taken people before, but I don't take anyone anymore. Before, I took some people who didn't even know how to swim, and they'd put on a snorkel and mask and we'd enjoy ourselves, but like I said, since there's no profit, no one says, "I want to be a fisherman." Before, you used to hear that, "I want to be a fisherman," but no one wants to be a fisherman here anymore.

[00:42:14]

That is true.

Right now, there won't be any fishermen, and the catch is gone, we're going to catch them.

So what could be done with those young people who might have some interest, to train them to learn how to do things properly?

Make more investments, give them equipment. For example, we give you this fishing course. Catch the fish that can't be caught here. We'll give you a mask, a [INAUDIBLE] to get you started. We take them, we explain the maps to them; look, these are points, here you can see the slabs, the reefs, explain everything to them.

Where is the fishing?

Exactly, where the fishing is, and that's where they go. Instill that in their heads, that curiosity when they look at the map, "Look, this is a reef, there might be lobsters here, let's go there," and then they send it, things like that, motivate them.

Tell me about an interesting experience you've had that left a lasting impression on you while you were out fishing, something you'd say, "Damn, I'm going to remember this and when my kids are grown up I'm going to tell them because it's delicious, it's wonderful, and I want them to know."

I don't know, but this is a little bit about once a shark eats me.

How was it?

A shark almost ate me once. That was my experience, more than anything. Do you know what trigger fish are?

Yeah.

They call it pigfish.

Yes, trigger.

That one bit me once here, it opened my mouth, but that was something from the sea, but the shark was on a key that is in Cayo Blanco, which is out there, I was with Abdiel, and we went fishing in Cayo Blanco and we were catching captains, (Wrasses, \*Labridae\*) Do you know what captains are? (Wrasses, \*Labridae\*)

Yeah.

And we always want to catch fish, and we fish without a line, when we go fishing we fish without a line because we know how to hit the shots so that we catch them. And that day of bad luck I shot at the fish (Blue Marlin, \*Makaira nigricans XLII\*) and I hooked it well but I didn't hook it in the brain so that it would stay still, and the fish (Blue Marlin, \*Makaira nigricans XLII\*) hit-

Let's move.

He was moving with the rod and he wouldn't let me catch him, every time I got close to him he would go further away with the rod, and he hit the bottom like this, and some kind of shark came, and when I turned right in front of him, it was coming right for me, and I freaked out, and what I did was like I went under and he went over me, and then I grabbed him, he stuck to the rod, and I took the shotgun out and started signaling to these people, because we almost always fish as three, but we separate, one on his side, one on the other to avoid accidents.

Safe.

And I started to pull out the rod like this, I remember, I was using his own shotgun, a really long shotgun, and I started doing it like this, and I got in the boat, and we gave him a break, he caught it, he ate the fish.

The shark?

The shark ate the fish in half, bit it in half, circled around, and we waited and went down to get the rod. That was the experience that, I'd say, left the biggest mark on me.

But that wasn't a good experience. A good experience, in fact, what kind of shark was it, you know?

[00:45:17]

A lemon shark (Reef shark, \*Carcharhinus obscurus\*) he told me it was a lemon shark. (Reef shark, \*Carcharhinus obscurus\*)

A lemon (Reef shark, \*Carcharhinus obscurus\*)

Un limón, (Reef shark, \*Carcharhinus obscurus\*) pero un limón (Reef shark, \*Carcharhinus obscurus\*) que-

Big.

A lemon shark (Reef shark, \*Carcharhinus obscurus\*) about six feet long, somewhere around there.

It was big.

And it was wide.

I was healthy.

Yes, I was like if he caught me he'd rip me apart, but experiences like that, we've found many caves, we go in here, we come out there, we know many places that many people in Vieques don't know exist. They're called underwater caves, right? We're fishing, for example, we look, and suddenly we see the light, way off there, and since we're curious, we go in. Since we can't hold out long enough, we go in, and if there's no turning, well, we turn, things like that, but he knows a lot. He's the one who knows the most about caves.

Abdiel.

Abdiel. He goes through the caves and we come out in—really brutal, underwater labyrinths.

So, what are the species that you like the most, that are caught the most here in Culebra that you know of?

In Vieques.

Sorry, in Vieques, excuse me, in Vieques.

We're big fans of the sama (mutton snapper, \*Lutjanus analis\*).

Do you take many?

No, that's why we're such big fans of them, because the sama (Mutton snapper, \*Lutjanus analis\*) is like class A. Anyone who sees you in Vieques with a sama (Mutton snapper, \*Lutjanus analis\*) will buy one right away.

Really?

Yes, here the mutton snapper (Lutjanus analis) is good, and very difficult to pick out with a shotgun, because the mutton snapper (Lutjanus analis) is very intelligent and very fast. But the mutton snapper (Lutjanus analis), a fish (Blue Marlin, Makaira nigricans XLII), that we say, if we see 100 we catch 100, it is the mutton snapper (Lutjanus analis), but it has also decreased. The mutton snapper (Lutjanus analis) is seen a lot in the north, after breakwaters, as there is a lot of sargassum so the shore is very green, the mutton snapper (Lutjanus analis) spends a lot of time eating there and we go to see if we can throw ourselves in. During this time, a lot of mutton snapper is harvested. (Mutton snapper, \*Lutjanus analis\*)

Do you respect the closed seasons? Is it important to you?

Yes, he fought us to the bitter end, and we've adapted quite a bit.

Anything else you would like to tell us, considering and remembering, and if you agree that this interview that was done with you this afternoon, if you are willing to be used as your voice for [CROSSTALK]

Sure, of course.

It can be used. Any other message you'd like to give to the people listening, whether they're scientists or anthropologists, about fishing in Vieques, climate change, what can be done, how can we all collaborate?

That Vieques has enormous fishing potential, which is being lost, and many beautiful seabeds that should be given more care as such, that still have life, that we must value, and give more examples of what's happening because many people don't have the knowledge to build a house there, but they don't know how it can affect that. And to respect the shore a lot, because they really don't respect it. They put up a house and over the years you see it - they even change the shape of the shore because those who know, know that the shore, at different times of the year, the water rises as it falls, and when they build walls, what happens? The water crashes there, it eats away at the shores, many things that they need to improve and offer workshops to inform people about why.