MONICA
THE CONSERVATION LEADER

TRANSLATING SCIENCE INTO ACTION

NEXT, WE'LL SEE SOME OF OUR YOUNGER PLANTS.

PUEBLA, MEXICO
They're just a bunch of pots.

No, there's something inside.

What are these little guys?

Those are oak trees from Baja Sur, Mexico. Their story is anything but ordinary.
BAJA SUR, MEXICO

The first time I walked into that grove, I was in awe.

But there was something strange going on there.

It's like an oak retirement community.
Not a single tree here is less than 100 years old, which is a problem. When these trees die, the species risks going extinct.

It's my job to make sure that doesn't happen.

Wow. Did you always know you'd grow up to be a scientist?

You know, I always loved nature, but I actually entered college as an English major!
BUT I TOOK AN ENVIRONMENTAL SCIENCE CLASS AS AN ELECTIVE. THAT WAS MY FIRST EXPOSURE TO THE IDEAS OF CLIMATE CHANGE AND VANISHING BIODIVERSITY.

IT WAS EYE-OPENING.

I WISH THERE WAS SOMETHING WE COULD DO.

Yeah, there has to be.
SO YOU GOT INTO CONSERVATION!

WELL, NOT EXACTLY.

I wanted to work in nature, travel, and meet all sorts of people. I love trees, so studying them and getting a science degree seemed like a way to do all that.
I didn’t have a clear vision of where I’d end up, but I hoped my degree and experiences would open some doors.

Eventually, they did.
Today, as a conservation scientist working in a public garden, I focus on using research to help save vulnerable tree species from extinction.

But this is a huge task, one that you can't do alone.

So I pull together groups of scientists, conservationists, and local community members to investigate threats to trees.
So what do we think is keeping the acorns from establishing themselves and the young trees from becoming adults?

With shifting weather patterns brought by a changing climate, water is likely an issue.

Maybe they're just not getting enough?

Or not enough for a long enough period of time?

Or at the right time of year?
THE FIRST STEP WAS BULKING UP THE SPECIES' NUMBERS. THERE WERE ACORNS GROWING IN ONLY TWO BOTANICAL GARDENS BEFORE WE STARTED.

Now, we've got thousands in 14 gardens!
WE WANTED TO SEE WHAT WOULD HAPPEN IF WE PLANTED ACORNS, AND PROTECTED AND MONITORED THE SEEDLINGS IN THE DRY CREEK BEDS OF BAJA.

IS DROUGHT IMPACTING THEM OR IS IT SOMETHING ELSE?

AND WE RUN EXPERIMENTS, FENCING OUT COWS TO SEE IF A YEAR OR TWO WITHOUT GRAZING COULD HELP THE SEEDLINGS ESTABLISH.
WE'RE ALSO WORKING WITH CLIMATE SCIENTISTS AT A MEXICAN UNIVERSITY, CREATING MODELS TO DETERMINE WHERE THE BEST HABITAT FOR THIS SPECIES WILL BE IN THE FUTURE BASED ON PREDICTED RAIN PATTERNS.

BUT WE CAN'T KEEP ALL THIS RESEARCH TO OURSELVES. SO I DO A TON OF OUTREACH—INSPIRING AND EDUCATING TO GET THE MESSAGE ACROSS AND FIND COLLABORATORS.

WHAT MOTIVATES YOU TO DO THIS KIND OF WORK?
I love translating science into action. It’s gratifying to think that our efforts might result in these oaks bouncing back from the brink of extinction.

Hooray! You're saving the oaks!

Haha, well, we're off to a good start. We still have a lot to do to make sure oaks don't go extinct, but we are working hard!

I meet a new team in China on Tuesday!
Okay, let's continue with the tour.

Hmmm... I wonder where this door leads.