

I WOULDN'T SAY THAT MOST OF US THINK ABOUT ANTARCTICA ON A DAY TO DAY BASIS. IN FACT I CAN'T EVEN REMEMBER THE LAST TIME THE CONTINENT WAS BROUGHT UP IN ONE OF MY CLASSES. BUT THERE'S A LOT OF IMPORTANT WORK SURROUNDING ANTARCTICA, RESEARCH THAT TOUCHES US FROM OVER 8,000 MILES AWAY

I'M ALEX CROOKSHANKS AND THIS IS EPISODE TWO OF ENVIRONMENTAL -A PODCAST ALL ABOUT OUR ENVIRONMENT AND WHY IT MATTERS.

THERE'S GOING TO BE THREE PARTS TO THIS EPISODE: THE WHO, THE HOW, AND THE WHY. SO FIRST THINGS FIRST: THE WHO

[START LIGHT]

CERTAINTY YOU CAN GO ABOUT YOUR LIFE AND NO THINK ABOUT ANTARCTICA AND I RECOGNIZE THAT MOST PEOPLE GO ABOUT THEIR LIVES WITHOUT THINKING ABOUT IT EVERYDAY, BUT I THINK WE LOSE INFORMATION ABOUT THE RICHNESS AND THE REALLY INCREDIBLE PLANET THAT WE LIVE ON. THERE'S JUST SOME STUNNING ASPECTS TO THIS PLANET THAT WE CAN ONLY PROTECT AND CARE FOR IF WE KNOW THEY EXIST. AND SO I THINK THERE'S REAL VALUE TO UNDERSTANDING OUR HOME.

[STOP LIGHT]

THIS IS KATHY LICHT, AN ASSOCIATE PROFESSOR OF EARTH SCIENCES AT IUPUI AND WHAT'S SPECIAL ABOUT KATHY IS THAT SHE'S GOING TO BE TRAVELING TO ANTARCTICA IN ONLY A COUPLE OF MONTHS

[START LICHT]

SO I WILL BE HEADING TO ANTARCTICA IN THE MIDDLE OF NOVEMBER AND WE ARE INTERESTED IN UNDERSTANDING THE HISTORY OF THIS HUGE MOUNTAIN RANGE THAT CUTS THROUGH THE MIDDLE OF ANTARCTICA. IT'S A MOUNTAIN RANGE THAT IS SORT OF THE SIZE OF THE ANDES SO A THOUSAND MILES LONG KIND OF SCALE AND THE MOUNTAIN PEAKS ARE 14000 FEET HIGH. TYPICALLY IN THE WORLD WE KNOW WHY MOUNTAIN FORM -IT'S WHEN TWO PLATES COLLIDE AND THERE'S SUBDUCTION AND THAT CAUSES MOUNTAINS TO FORM. THAT'S

[STOP LICHT]

ONE COMMON WAY TO BUILD SUCH MOUNTAINS, BUT THERE'S NO SUCH CONDITION OCCURRING IN ANTARCTICA SO THERE'S NO OBVIOUS REASON WHY THE MOUNTAIN RANGE IS ACTUALLY THERE. SO WE'RE INTERESTED IN TRYING TO RECONSTRUCT IT'S HISTORY SO IF WE CAN FIGURE OUTS WHEN THEY BECOME MOUNTAINS THEN WE HAVE SOME LINES OF EVIDENCE WE CAN USE TO FIGURE OUT WHY THEY FORMED WHEN THEY FORMED

GETTING A TRIP LIKE THIS TO ANTARCTICA ISN'T EASY. FOR PROFESSOR LICHT'S PROJECT IT MEANT YEARS OF HARD WORK

[START LIGHT]

I THINK THE FIRST PROPOSAL WE WROTE WENT IN TWO THOUSAND AND THIRTEEN. AND SO THE WAY THIS PROGRAM WORKS IS THAT IT'S FUNDED BY THE US NATIONAL SCIENCE FOUNDATION SO IT'S A FEDERAL PROGRAM SO WHEN WE COME UP WITH A RESEARCH IDEA THAT WE THINK IS REALLY IMPORTANT AND REALLY COMPELLING. WE WRITE A LENGTHY PROPOSAL TO THE NATIONAL SCIENCE FOUNDATION AND THAT GETS SEND TO FIVE REVIEWERS -WHO ARE ALSO COMPETING FOR THE SAME POT OF MONEY SO THEY'RE FAIRLY CRITICAL OF OUR WORK- AND ONCE THOSE FIVE REVIEWS COME IN EVERYBODY RATES YOUR PROPOSAL AND GIVES COMMENTS. THEN A PANEL OF TWENTY SCIENTISTS THAT GOES THROUGH ALL OF THEM AND THEN RANKS THEM AND THEN THE TOP ONES ARE PUT IN FOR LOGISTICS REVIEW. AND THEN THEY FINALLY GET TO THE TOP FEW PROPOSALS THAT THOSE ARE THE ONES THAT GET FUNDED.

[STOP LIGHT]

THE ACTUAL PLANNING FOR THIS PROJECT STARTED BACK IN APRIL. THAT'S WHEN THE GATHERING OF SUPPLIES AND RESOURCES STARTED ALL FOR ONLY TWO WEEKS OF RESEARCH IN THE FIELD

[START LIGHT]

OURS IS A PRETTY SHORT SEASON SO IN THEORY ABOUT TWO WEEKS SO WE'LL LEAVE HERE IN THE MIDDLE OF NOVEMBER AND BY THE TIME YOU COUNT

TRAVEL TO NEW ZEALAND, THE TIME WE HAVE IN NEW ZEALAND GETTING THE CLOTHING AND SOME OF THE TRAINING, AND THEN ALL THE TRAINING IN MCMURDO, PLUS PACKING UP OUR GEAR, IT'S ALMOST TWO WEEKS OF HAVING A HOPE OF GETTING INTO THE FIELD.

SO THERE'S ALWAYS A LOT OF PREPARATION THAT NEEDS TO GO INTO DO IT AND EVEN THOUGH I'VE SEVERAL TIMES IT'S STILL ALWAYS INCREDIBLE EXCITING TO KNOW THAT "I'M GOING TO A VERY SPECIAL PLACE ON THE PLANET"

[STOP LIGHT]

ANTARCTICA IS A REALLY SPECIAL PLACE ON THE PLANET AND IF IT'S SOMETHING THAT YOU WANT TO EXPERIENCE THEN THIS IS PART TWO: THE HOW...HOW SOMEBODY ANYBODY CAN MAKE IT ALL THE WAY TO ANTARCTICA

[START LIGHT]

IF YOU REALLY WANT TO GO, IF YOU'RE INTERESTED IN SCIENCE, THAT IS PROBABLY THE EASIEST ROUTE. THERE ARE ALL TYPES OF SCIENCE PROJECTS THAT GO ON. BIOLOGY PROJECTS ON THE WILDLIFE ON MICROBES ON ALL SORTS OF INTERESTING CRITTERS. ATMOSPHERIC SCIENCE. PHYSICAL SCIENCES ON GLACIERS. ICE SHEET PROJECTS AND GEOLOGY PROJECTS.

[STOP LIGHT]

AND IF SCIENCE DOESN'T REALLY INTEREST YOU THERE ARE OTHER JOBS THAT CAN GET YOU TO THE SOUTH POLE.

[START LIGHT]

THE OTHER WAY PEOPLE GO DOWN IS TO WORK IN MCMURDO OR SOUTH POLAR -ONE OF THE BASES. THERE'S NO INDIGENOUS POPULATIONS SO THEY HAVE TO HIRE A WHOLE CITY OF PEOPLE AND THEY HAVE TO HIRE EVERYBODY TO DO EVERYTHING FROM SWEEPING TO CLEANING TO DOING ELECTRICIANS TO COMPUTER PROGRAMMERS TO FIREMEN AND EVERYTHING INBETWEEN.

[STOP LIGHT]

IN THE END, NO MATTER HOW YOU GET THERE RESEARCH PROJECTS ARE INCREDIBLY IMPORTANT..AND THAT DIVES INTO OUR WHY. WHY ARE ANTARCTICA EXPEDITIONS SO IMPORTANT AND WHY SHOULD WE CARE?

[START NEWS CLIPS]

AFTER 100 YEARS OF CARBON EMISSIONS AND GLOBAL WARMING THERE ARE NOW A LOT OF PROBLEMS FACING ANTARCTICA AND THE ICE SITTING ON TOP OF IT.

[START LIGHT]

ANTARCTICA'S SEA ICE AS WELL, BUT IT ALSO HAS THESE ICE SHELVES THAT ARE SORT OF COMING OFF THE CONTINENT. AND THEY'RE HUNDREDS TO THOUSANDS OF FEET THICK. THOSE ICE SHELVES ARE FLOATING PARTS OF THE GLACIER THAT ACT AS DAMS SORT OF HOLDING BACK THE ICE ON THE CONTINENT.

ONCE YOU REMOVE A DAMN THEN THE GLACIERS FALL INTO THE OCEAN AND
CREATE SEA LEVEL RISE. SO THE ICE BEHIND IT THINS. FLOWS FASTER AND
THAT'S WHAT CAUSES SEA LEVEL RISE. AND SO NOW SOME OF THE PLACES
BEING HELD BEHIND THE ICE SHELVES ARE REALLY MASSIVE SECTIONS OF ICE
SO THESE ARE AREAS MUCH LARGER THAN INDIANA BEING COVERED BY A
MILE OF ICE AND SO WHEN YOU TAKE AWAY THAT DAMN ALL THAT ICE CAN GO
INTO THE OCEAN OR SIMPLY GO FLOAT.

[STOP LIGHT]

ANTARCTIC RESEARCH PROJECTS ARE WHAT HELP US LEARN ABOUT THESE
KINDS OF THINGS, AND WHAT WE CAN DO TO HELP IT. AND THAT'S WHY
THEY'RE SO IMPORTANT -BECAUSE WITHOUT THEM WE'RE RISKING THE
FUTURE OF OUR PLANET

[START LIGHT]

WE ONLY HAVE ONE SO WE'RE PRETTY COMMITTED TO LIVING ON THIS PLANET
IN ORDER TO UNDERSTAND WHERE WE'RE HEADED IN THIS TIME OF GREAT
CHANGE AND AS OUR POPULATIONS GROWS WE'RE GOING TO BE CHANGING
THE CLIMATE EVEN MORE. SO IF WE DON'T HAVE A CONTEXT IN WHICH TO
UNDERSTAND HAS BEEN LIKE IN THE PAST IT'S HARD TO KNOW WHERE WE'RE
HEADED AND WHAT KIND OF CHANGES WE MIGHT EXPECT NOT SEE IN OUR
LIFETIMES. WHAT'S EVEN POSSIBLE IN TERMS OF CHANGES THAT THE EARTH
CAN GO THROUGH ON A SHORT TIME SCALE.

[STOP LIGHT]

SO MAYBE IT'S ABOUT TIME WE START PAYING A LITTLE MORE ATTENTION TO
ANTARCTICA

FOR 91.3 WHJE THIS HAS BEEN ALEX CROOKSHANKS WITH THE PODCAST
ENVIRONMENTAL. OR MORE EPISODES OF ENVIRONMENTAL AND OTHER GREAT
PODCASTS VISIT OUR WEBSITE AT WHJE.COM