

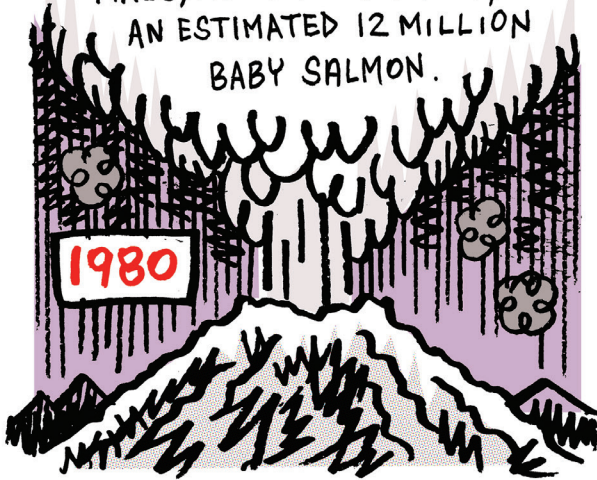
Keep Digging

How some scared little gophers brought Mount St. Helens back to life.

STORY: MARGARET HARRIS
ILLUSTRATIONS: GREG STUMP

WHEN MOUNT ST. HELENS ERUPTED IN MAY OF 1980, IT BLEW ITSELF APART, BLANKETING ITS SURROUNDINGS IN A CUBIC MILE OF ROCK AND ASH.

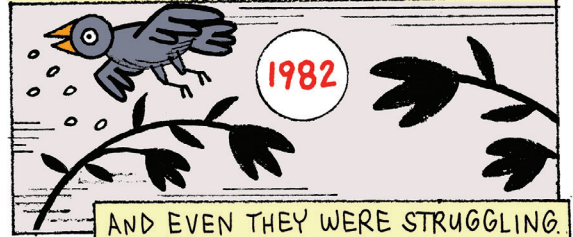
AROUND 57 PEOPLE WERE KILLED, ALONG WITH THOUSANDS OF BIRDS AND MAMMALS, MILLIONS OF TREES, AND AN ESTIMATED 12 MILLION BABY SALMON.



IN THE WORST-AFFECTED AREAS, EVEN THE MICROBES IN THE SOIL PERISHED, INCINERATED BY THE THERMAL ENERGY OF 1600 HIROSHIMA BOMBS.

AN EXPEDITION TO THE AREA ABOVE SPIRIT LAKE FOUND NO MEASURABLE CARBON OR NITROGEN IN THE SOIL AT ALL.

TWO YEARS LATER, LITTLE HAD CHANGED. VERY LITTLE LIFE EXISTED IN THE NEW PUMICE PLAIN, APART FROM A FEW STRAGGLY LUPINE FLOWERS THAT PROBABLY GREW FROM SEEDS DROPPED BY BIRDS.



STILL, THEIR PRESENCE GAVE SCIENTISTS AN IDEA. LUPINE SEEDS ARE FOOD FOR POCKET GOPHERS AND EACH GOPHER CAN SHIFT AS MUCH AS 227 kg OF SOIL A MONTH LOOKING FOR THEM.



THEY MAY EVEN DO IT DELIBERATELY, IMPROVING THE SOIL SO MORE SEEDS GROW. LIKE FARMERS!

THERE WERE NO GOPHERS LEFT ON THE PUMICE PLAIN ITSELF, BUT A FEW MILES AWAY, A SMALL POPULATION HAD SURVIVED THE ERUPTION UNDER DEEP SNOWPACK.



WITHIN WEEKS, THEIR DIGGING HAD MIXED THE SURFACE ASH WITH DEEPER INTACT SOIL, SPEEDING UP THE AREA'S RECOVERY.

COULD THEY DO THE SAME IN THE DEVASTATED PUMICE PLAIN, WHICH HAD NO INTACT SOIL LEFT AT ALL?



IN 1983, TWO SCIENTISTS, MICHAEL ALLEN & JAMES McMAHON, DECIDED TO FIND OUT.

FOR ONE DAY, THE GOPHERS DUG AROUND IN WHAT MUST HAVE SEEMED LIKE GOPHER HELL, FRANTICALLY TRYING TO TRANSFORM THE PUMICE PLAIN INTO SOMEWHERE THEY COULD SURVIVE.



EVENTUALLY, ALLEN & McMAHON RELENDED, CAPTURED THE GOPHERS AND TOOK THEM HOME.

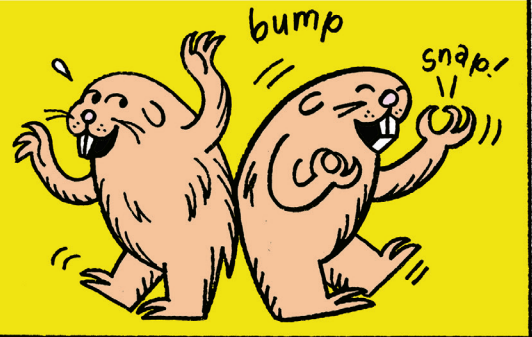
MIKE, WE'VE CAUGHT SOME GOPHERS, HELICOPTERED THEM IN, AND SET UP TWO 1-METER SQUARE ENCLOSURES. READY?

RELEASE THE GOPHERS, JIM!!



SIX YEARS LATER, ALLEN & McMAHON RETURNED. THE PUMICE PLAIN WAS STILL MOSTLY BARREN. BUT THIS TIME, THERE WERE TWO 1-METER-SQUARE EXCEPTIONS. WITHIN THESE FORMER GOPHER PLOTS, FORTY THOUSAND DIFFERENT PLANT SPECIES WERE THRIVING.

THE GOPHERS HAD DONE IT!



2024 ALLEN IS NOW A PROFESSOR EMERITUS AT UC RIVERSIDE. LAST YEAR, HE AND SOME COLLEAGUES RETURNED TO STUDY THE PUMICE PLAIN AGAIN.



YEP. THEY COULD STILL TELL THE DIFFERENCE.

IN THE 1980s, WE WERE JUST TESTING THE SHORT-TERM REACTION.

WHO WOULD HAVE PREDICTED YOU COULD TOSS A GOPHER IN FOR A DAY -

- AND SEE A RESIDUAL EFFECT FORTY YEARS LATER?



SO IF YOU EVER FEEL LIKE YOU'RE TRAPPED IN A HOSTILE ENVIRONMENT, SCRABBLING AROUND IN A MOUNTAIN OF UNFORGIVING ROCK AND WONDERING HOW YOU CAN EVER POSSIBLY MAKE A DIFFERENCE, REMEMBER THE POOR FRIGHTENED GOPHERS OF MOUNT ST. HELENS.



And Keep DIGGING.