

WAVES OF HOPE



SCRIPT: MACOBIOs - ILLUSTRATIONS: LLORENÇ GARRIT - COLOR: PATO CONDE



WAVES OF HOPE

SCRIPT: MaCoBioS

Lead author: Ewan Trégarot - Contributing authors - Elena Allegri
Andrea Cabrito - Gema Casal - Gabriel Cardoso - Cindy Cornet
Juan Pablo D'Olive - Kieran Deane - Silvia de Juan - Georg Heiss - Diego Kersting
Reinhold Leinfelder - Bethan O'Leary - Christian Simeoni - Marina Vergotti - Elisa Furlan

ILLUSTRATIONS: LLORENÇ GARRIT

COLOR: PATO CONDE

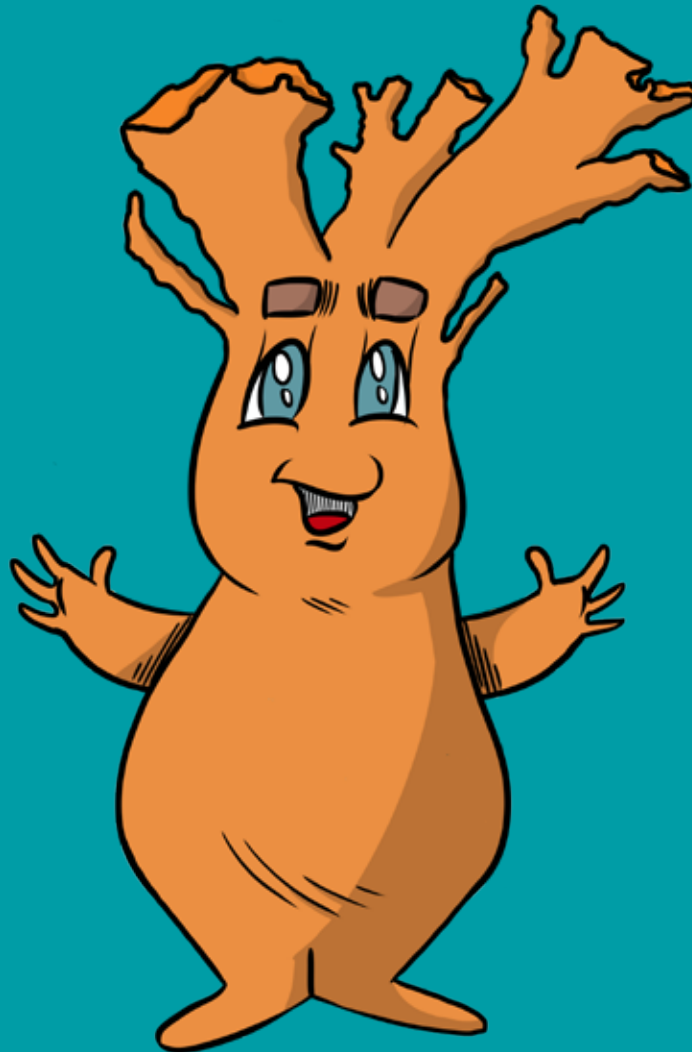
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ACROPORA



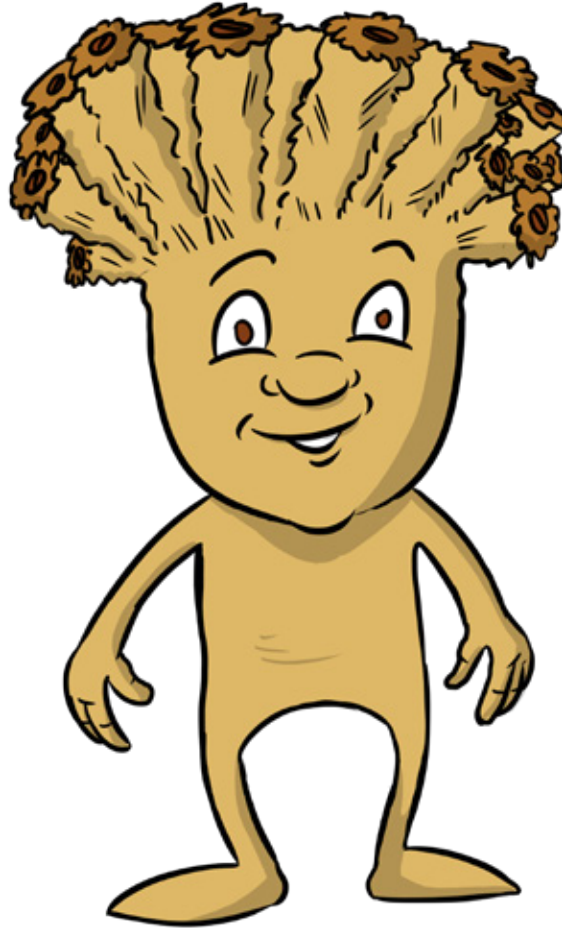
LATIN / COMMON NAMES: ACROPORA PALMATA / ELKHORN CORAL.

PREFERENCES: GROWS IN THE SHALLOW WATERS OF THE CARIBBEAN, USUALLY LESS THAN 20 M DEEP, NEEDS PLENTY OF SUNLIGHT FOR THE SYMBIOTIC ALGAE LIVING IN ITS TISSUE.

MAIN CHARACTERISTIC: COLONIAL ANIMALS THAT BUILD COMPLEX BRANCHING SKELETONS MADE OF CALCIUM CARBONATE. ALL CORALS HAVE STINGING CELLS, LIKE JELLYFISH.

DISLIKES: HIGH NUTRIENT LEVELS, INCREASING ACIDITY AND TEMPERATURES IN THE SEAWATER AROUND THEM.

CLADOCORA



LATIN / COMMON NAMES: CLADOCORA CAESPITOSA, ALSO KNOWN AS THE MEDITERRANEAN PILLOW CORAL.

PREFERENCES: GROWS GENERALLY IN SHALLOW, WELL-LIT WATERS BUT IT CAN ALSO THRIVE IN DEEPER AND TURBID WATERS.

MAIN CHARACTERISTIC: HEMISPHERICAL COLONIES THAT FORM CORAL BEDS AND SMALL REEFS.

DISLIKES: WARMING WATERS AND COASTAL URBANISATION IN SOME AREAS.

DIPLORIA



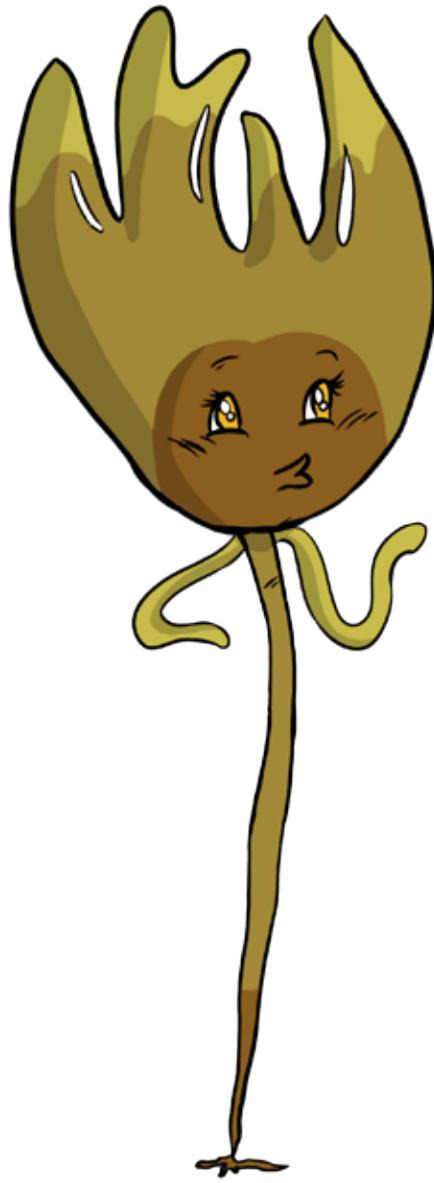
LATIN / COMMON NAMES: *DIPLORIA LABYRINTHIFORMIS*, ALSO KNOWN AS THE GROOVED BRAIN CORAL.

PREFERENCES: INHABIT SEAWARD SLOPE OF REEFS IN THE CARIBBEAN, DOWN TO 40 M DEPTH.

MAIN CHARACTERISTIC: COLONIAL ANIMALS THAT BUILD HEMISPHERICAL SKELETONS OF CALCIUM CARBONATE.

DISLIKES: HIGH NUTRIENT LEVELS, INCREASING ACIDITY AND TEMPERATURES IN THE SEAWATER AROUND THEM.

LAMINARIA



LATIN / COMMON NAMES: LAMINARIA DIGITATA / KELP OR OARWEED.

PREFERENCES: GROWS IN COLD, NUTRIENT-RICH WATERS OVER ROCKY SUBSTRATES IN NORTHERN EUROPE.

MAIN CHARACTERISTIC: ITS SHAPE RESEMBLES THE FINGERS OF A HAND WHICH GIVES IT ITS LATIN NAME. IT CAN COVER GREAT EXTENSIONS OF INTERTIDAL AND SUBTIDAL AREAS, FORMING DENSE KELP FORESTS.

DISLIKES: WARM TEMPERATURES!

SPARTINA



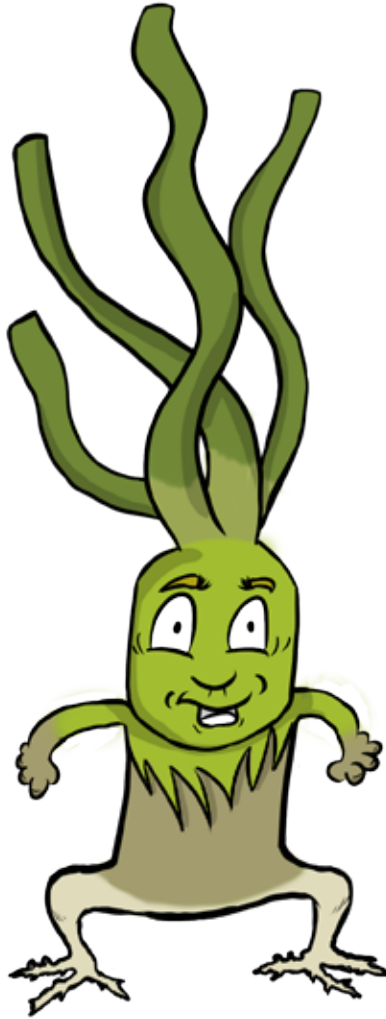
LATIN / COMMON NAMES: SPARTINA ANGLICA / COMMON CORD GRASS.

PREFERENCES: GROWS IN THE LOWER INTERTIDAL ZONE OF MANY COASTAL AREAS UNDER TEMPERATE CLIMATES SUCH AS NORTHERN EUROPE.

MAIN CHARACTERISTIC: VIGOROUS PERENNIAL GRASS WITH TALL STEMS (UP TO 1.3M) AND BROAD, STIFF, HAIRLESS LEAVES.

DISLIKES: BEING SQUEEZED BETWEEN SEA-LEVEL RISE AND COASTAL DEVELOPMENT.

SEAGRASS - REPRESENTING THE SEAGRASS FAMILY (THALASSIA - POSIDONIA - ZOSTERA)



LATIN / COMMON NAMES: POSIDONIA OCEANICA / MEDITERRANEAN TAPEWEED (MEDITERRANEAN SEA); THALASSIA TESTUDINUM / TURTLE GRASS (CARIBBEAN SEA AND GULF OF MEXICO); ZOSTERA / EELGRASS (WIDESPREAD IN THE NORTHERN HEMISPHERE, AUSTRALIA, NEW ZEALAND, SOUTHEAST ASIA AND SOUTHERN AFRICA)

PREFERENCES: THRIVES IN CLEAR, SHALLOW WATERS, TYPICALLY OVER SANDY OR MUDDY SUBSTRATES.

MAIN CHARACTERISTIC: FLOWERING PLANTS ADAPTED TO LIVE IN MARINE ENVIRONMENTS FROM THE TROPICS TO SUB-POLAR AREAS.

DISLIKES: ANCHORING, COASTAL DEVELOPMENT, POLLUTION, AND WARMING WATERS.

RHIZOPHORA



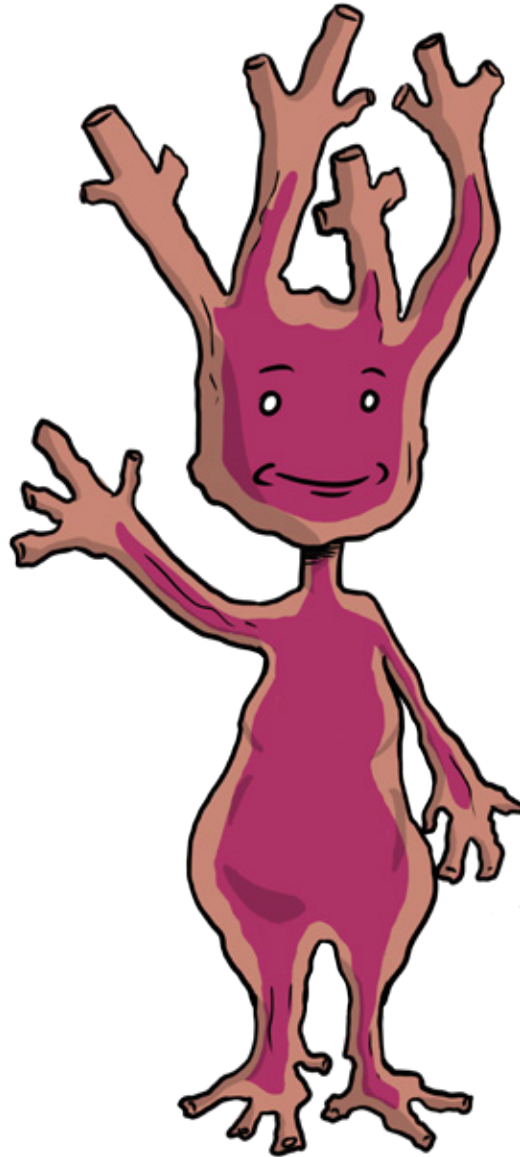
LATIN / COMMON NAMES: RHIZOPHORA MANGLE / RED MANGROVE TREE.

PREFERENCES: GROWS AT THE FRINGE OF THE MANGROVE FOREST IN THE CARIBBEAN. ENJOYS MUDDY, SHELTERED HABITATS.

MAIN CHARACTERISTIC: STILT-LIKE ROOTS

DISLIKES: HURRICANES!

RHODOLITHA



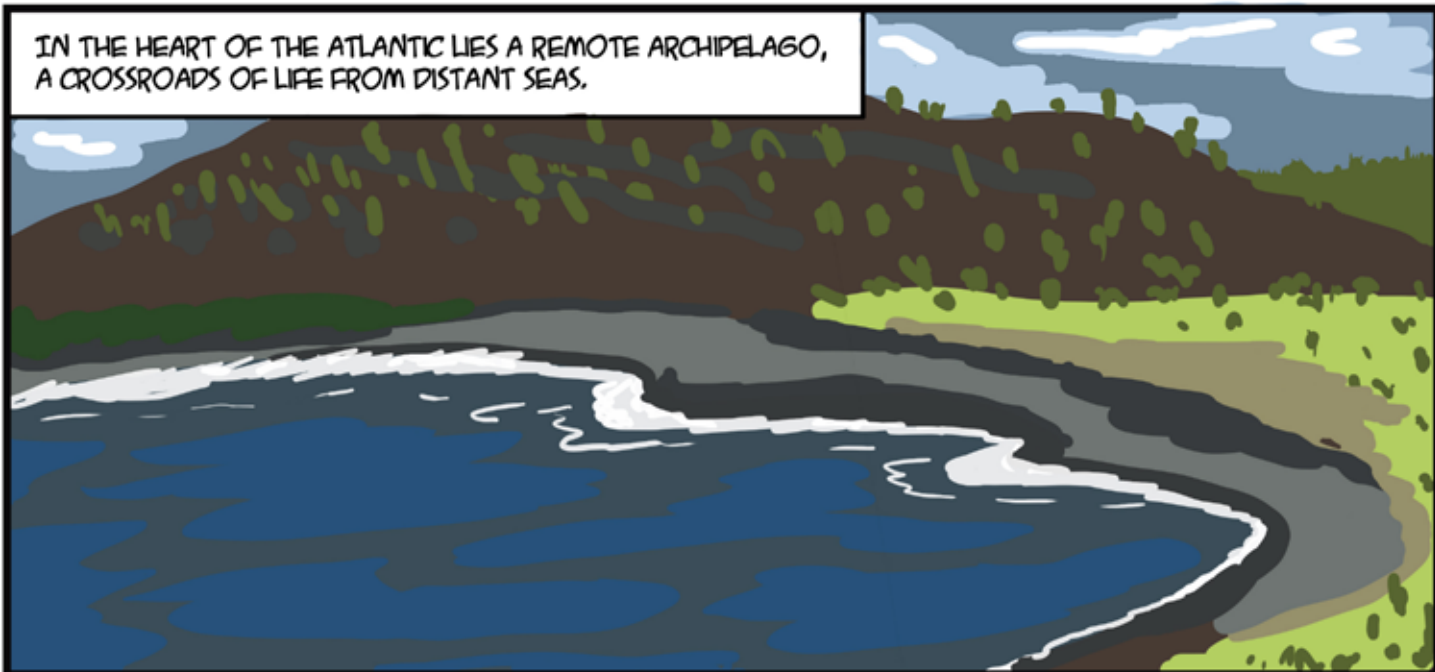
LATIN / COMMON NAMES: LITHOTHAMNION CORALLIODES / ONE OF THE MULTIPLE RED CALCAREOUS ALGAE THAT FORM MEDITERRANEAN RHODOLITH BEDS.

PREFERENCES: LIVES AT LOW LIGHT, EXTENDS DOWN TO 100 M DEEP ON THE MEDITERRANEAN CONTINENTAL SHELVES.

MAIN CHARACTERISTIC: SLOW GROWING ORGANISMS THAT FORM ROUNDED OR BRANCHED FREE-LIVING FORMS THAT ARE MADE OF CALCIUM CARBONATE STRUCTURES.

DISLIKES: ACIDIFICATION AND TRAWL FISHING.

IN THE HEART OF THE ATLANTIC LIES A REMOTE ARCHIPELAGO,
A CROSSROADS OF LIFE FROM DISTANT SEAS.



CURRENTS FROM THE CARIB-
BEAN, MEDITERRANEAN, AND
NORTHERN EUROPE HAVE
BROUGHT TOGETHER THE
MOST UNLIKELY TRAVELLERS.



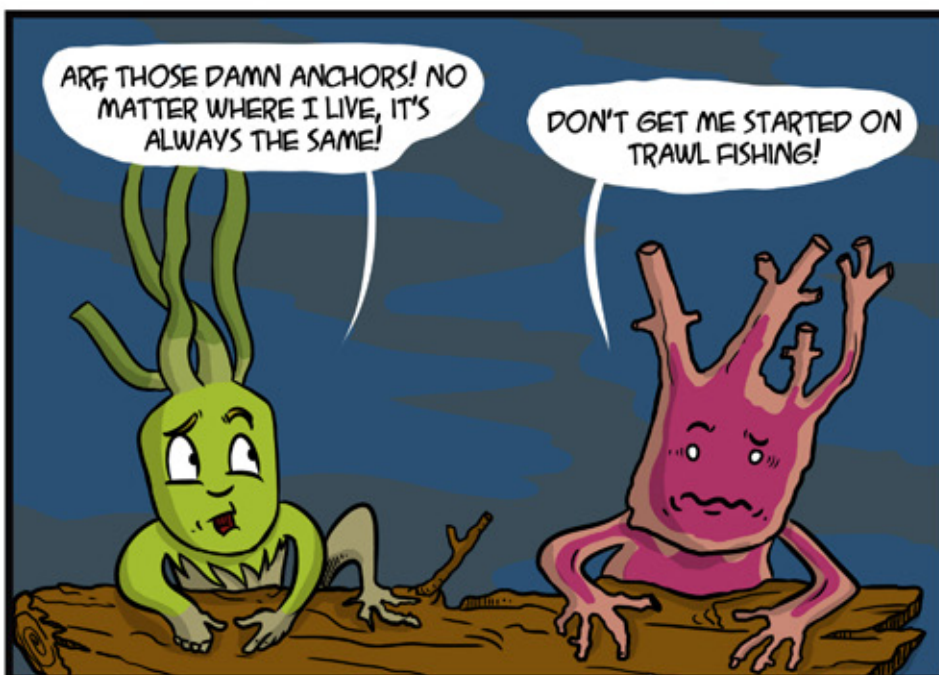
THAT HURRICANE WAS
INTENSE! I'VE NEVER
FELT SO SHAKEN!



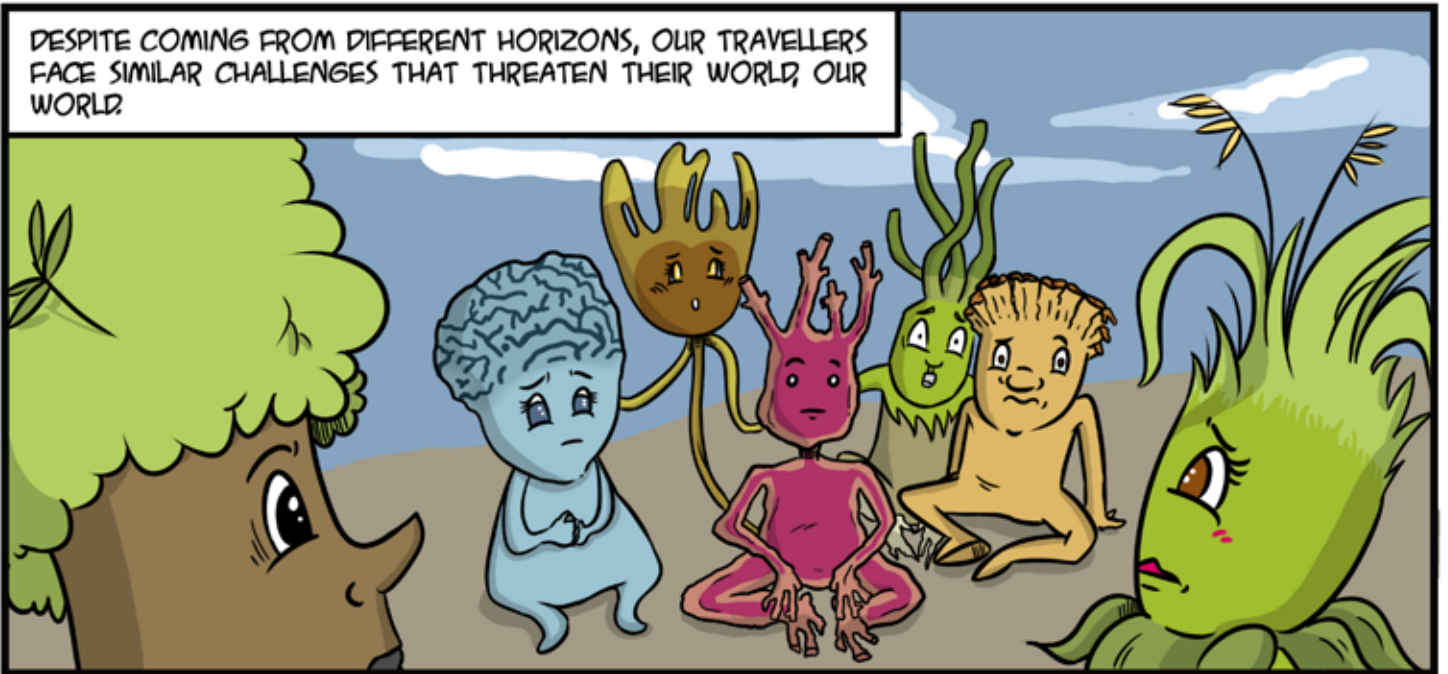
WHAT HAPPENED TO
THE SEAS? SINCE WHEN
IS IT THAT HOT AND
ACIDIC?!

AT LEAST THE WATERS
ARE COOLER HERE.





DESPITE COMING FROM DIFFERENT HORIZONS, OUR TRAVELLERS
FACE SIMILAR CHALLENGES THAT THREATEN THEIR WORLD, OUR
WORLD.



THE OCEAN HAS BROUGHT THEM TOGETHER, NOT FOR AN
ADVENTURE, BUT FOR A MISSION - TO SEEK ANSWERS AND
FIND A WAY FORWARDS.



WITH CLIMATE CHANGE, PO-
LLUTION, OVERFISHING, HABI-
TAT DESTRUCTION... WE'RE IN
TROUBLE! WE NEED JOINT
SOLUTIONS FOR US AND
PEOPLE WHO DEPEND ON US.

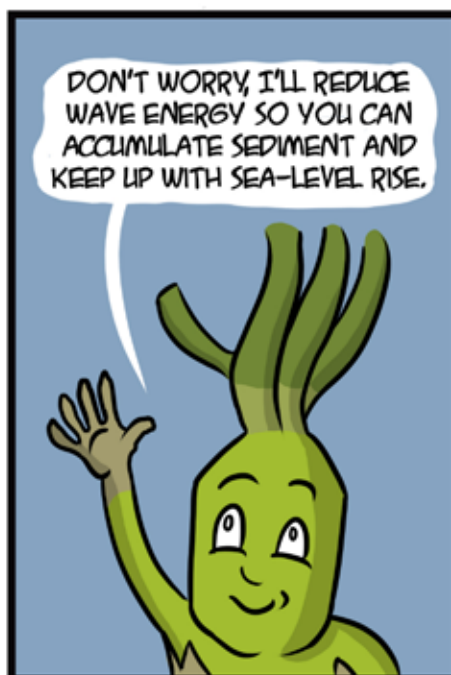
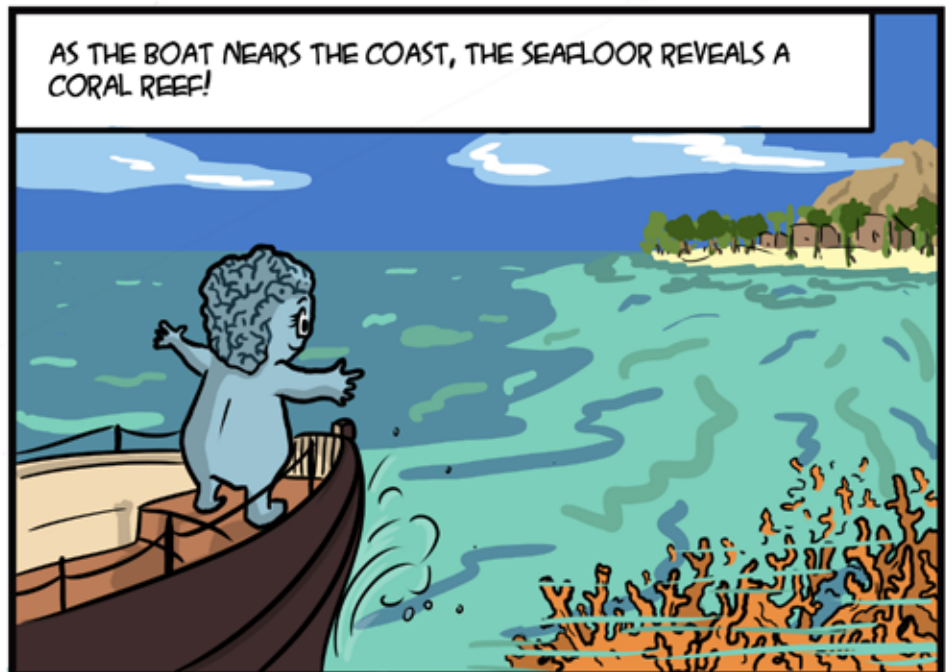
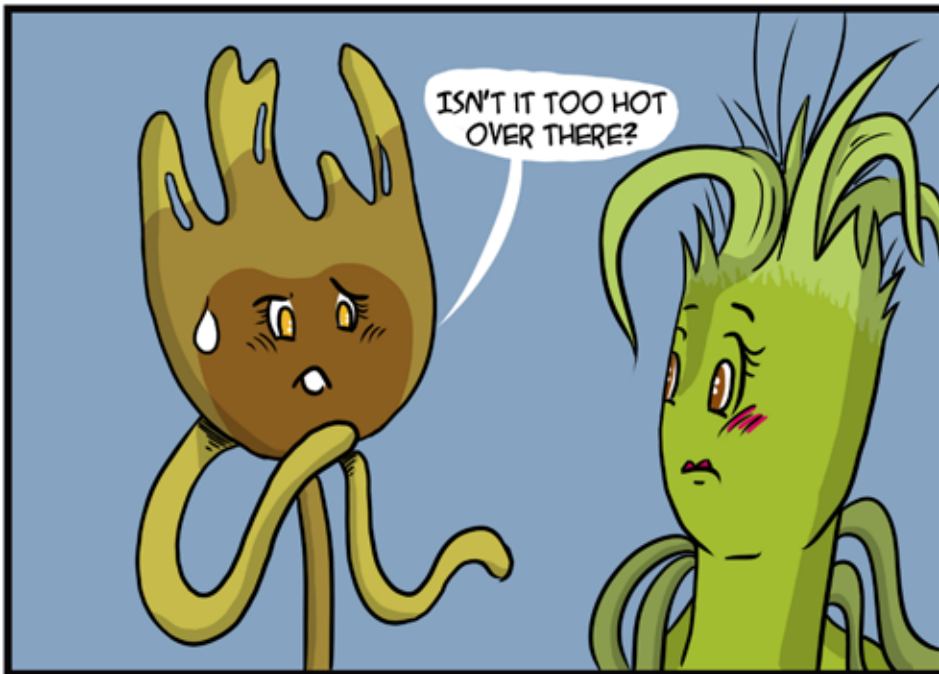


YES, BUT WHERE DO WE START?

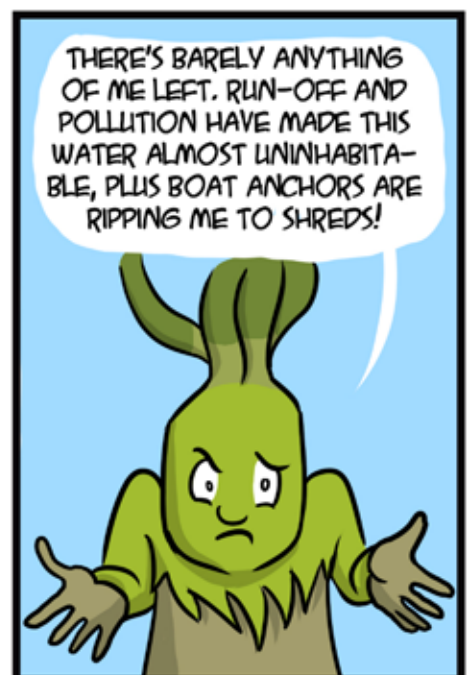
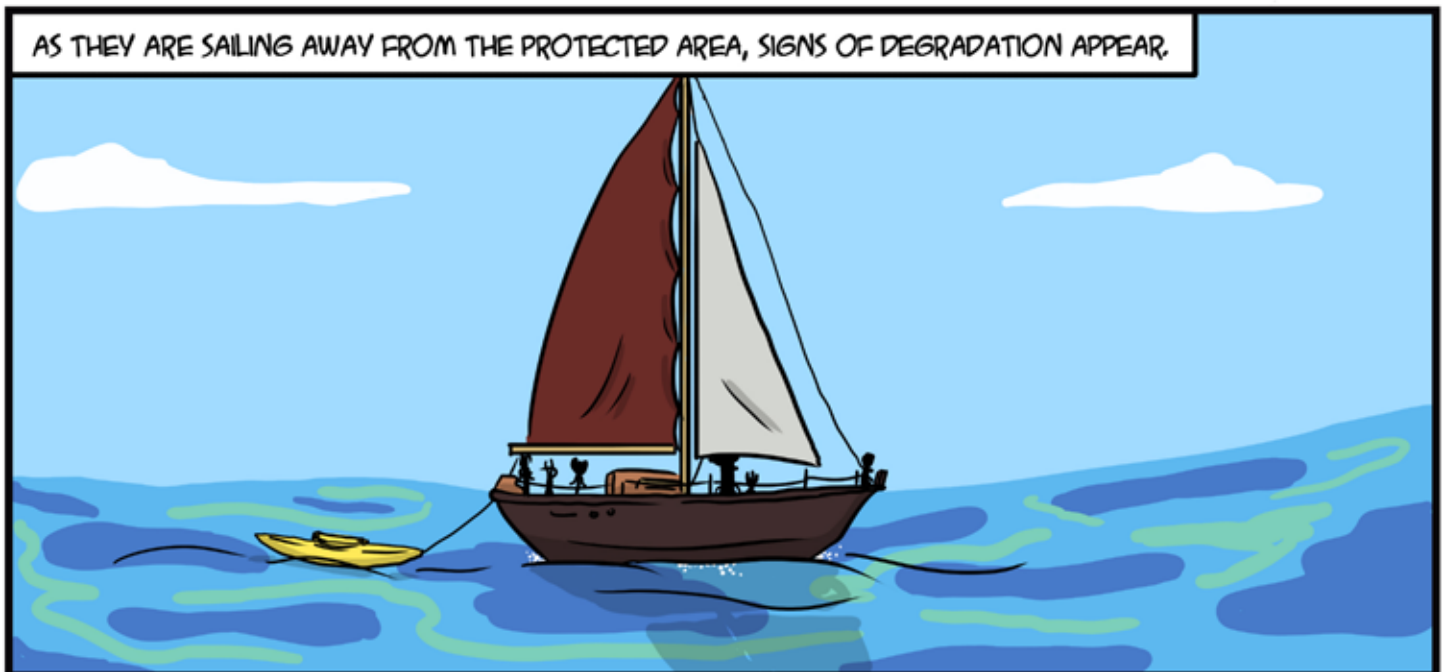


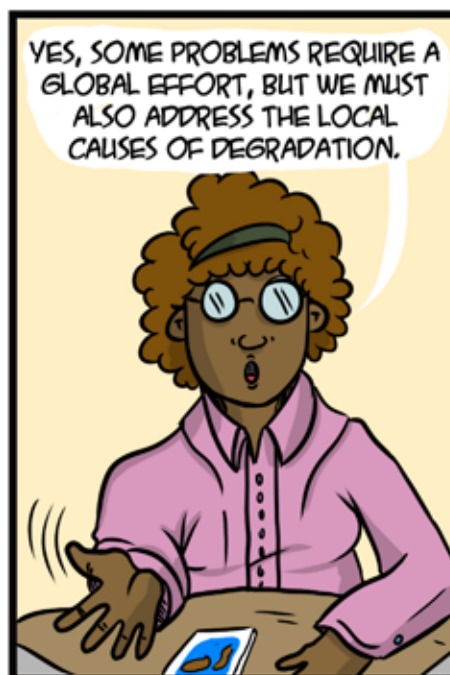
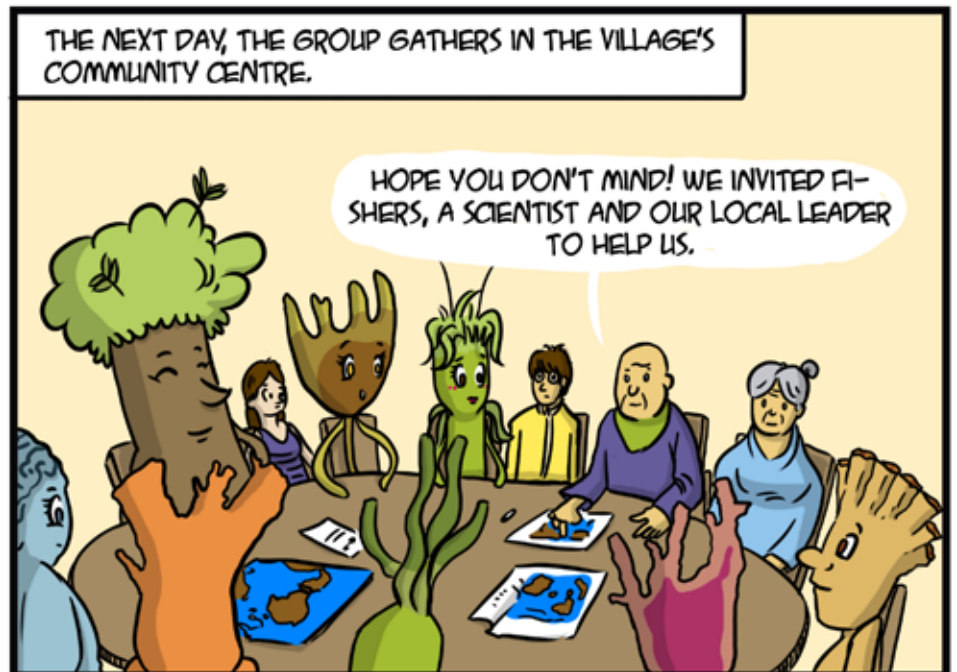
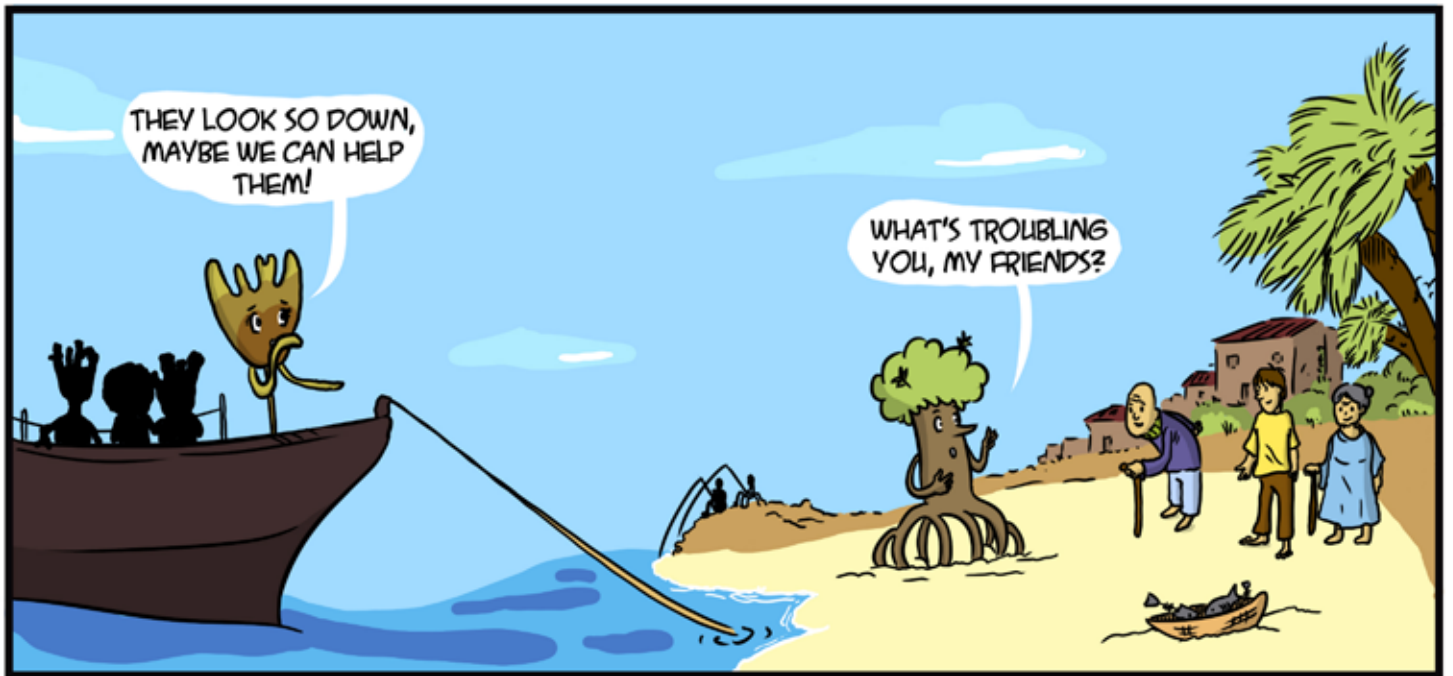
LET'S GO TO THE CARIBBEAN!











WELL, MANGROVES NEED STEADY SEAWATER FLOW TO THRIVE, BUT YOUR VILLAGE'S CANALS ARE CLOGGED WITH DEBRIS AND SEDIMENT. SOIL FROM LAND IS ALSO FILLING UP THE SPACES BETWEEN THEIR ROOTS. IT'S LIKE BREATHING THROUGH A CLOGGED STRAW! RESTORE THE FLOW, GIVE THEM TIME, AND THEY WILL THRIVE AGAIN!



THIS HELPS US TOO! RESTORING THE MANGROVES MEANS THEY'LL TRAP LAND-BASED SEDIMENTS AND NUTRIENTS, IMPROVING COASTAL WATER QUALITY!



AND I CAN REDUCE WAVE ENERGY THAT STIRS UP COASTAL WATERS! IN DEGRADED AREAS, WE CAN USE FRAGMENTS FROM MY BODY TO GROW NEW COLONIES. WE JUST NEED TO INCLUDE OTHER CORALS - DIVERSITY IS KEY FOR REEF SURVIVAL, ESPECIALLY WITH RISING TEMPERATURES.



WITH THRIVING ECOSYSTEMS, WE ALL BENEFIT, FROM MORE FISH TO BETTER COASTAL PROTECTION!

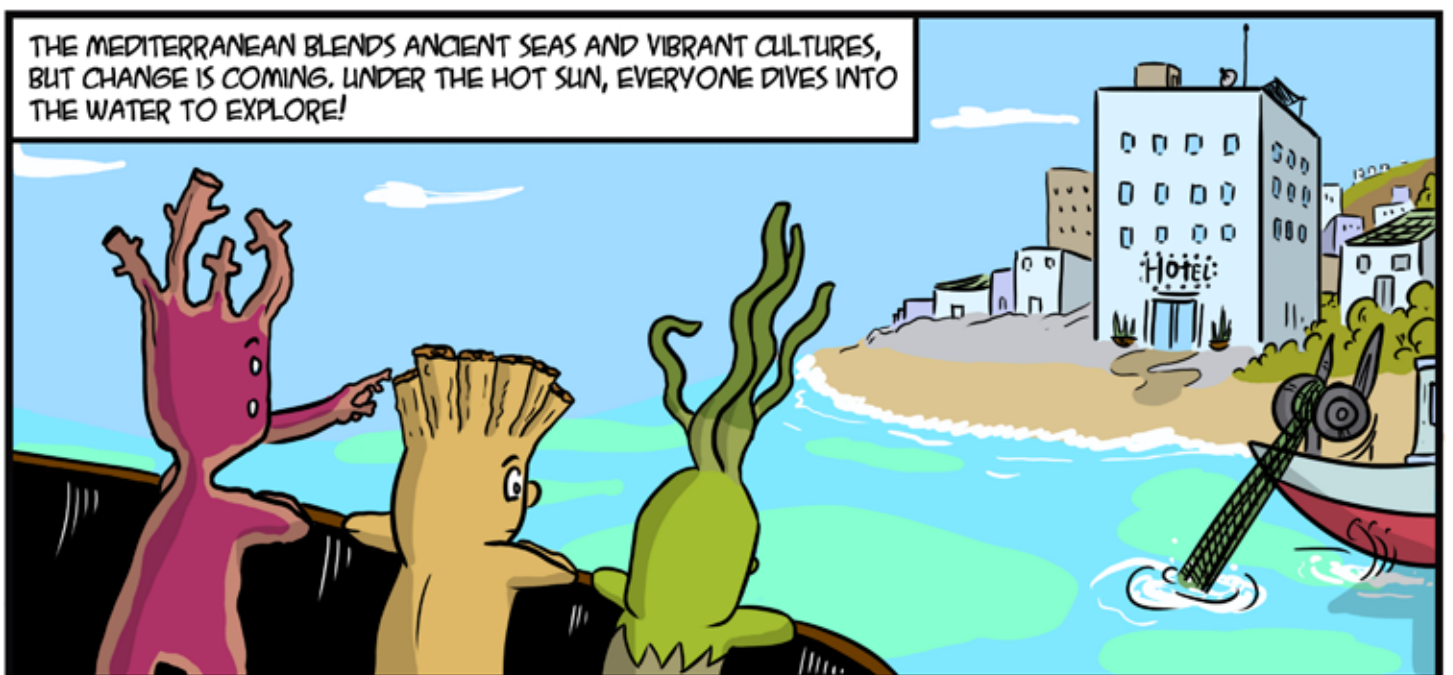
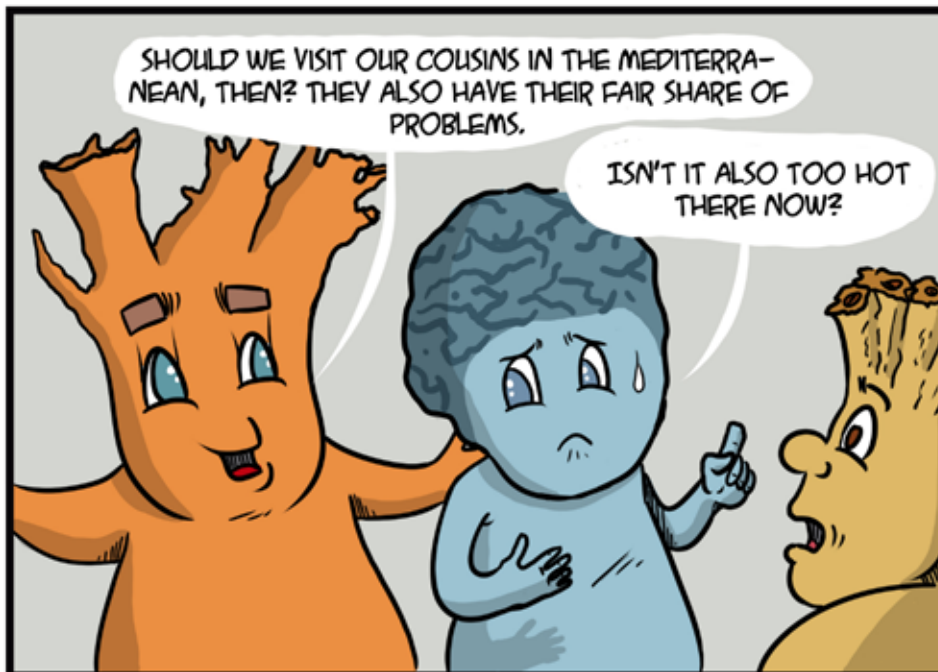


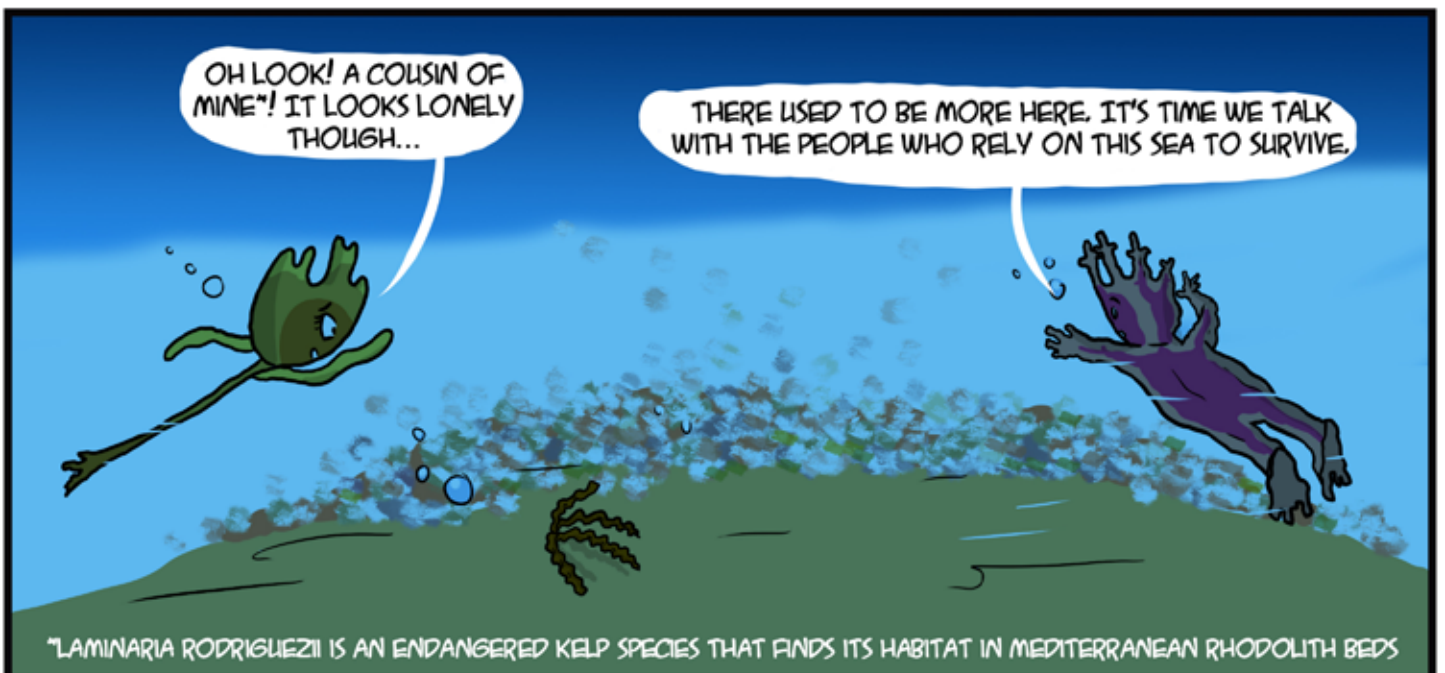
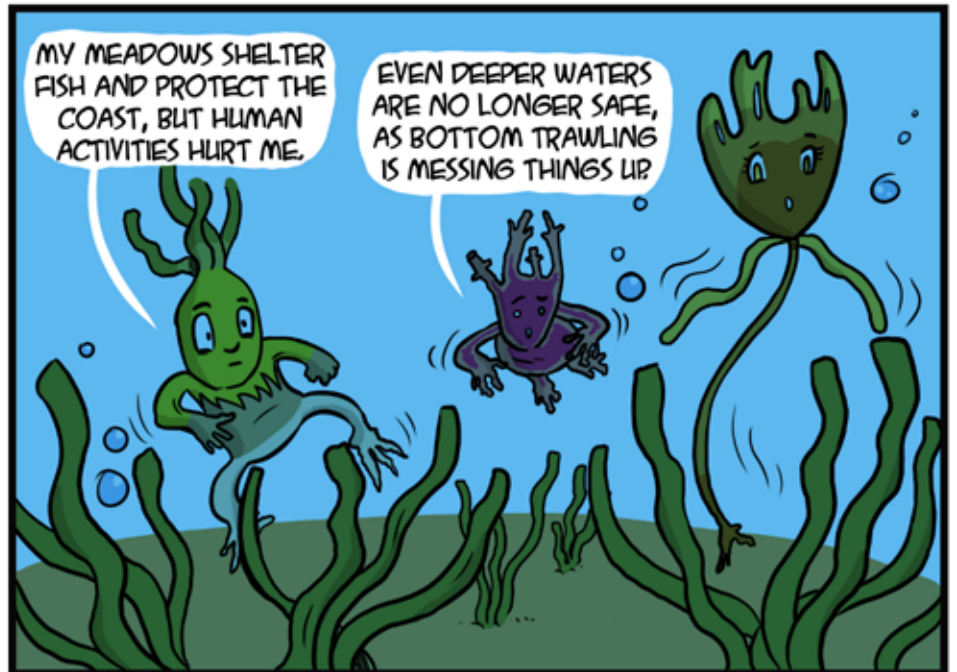
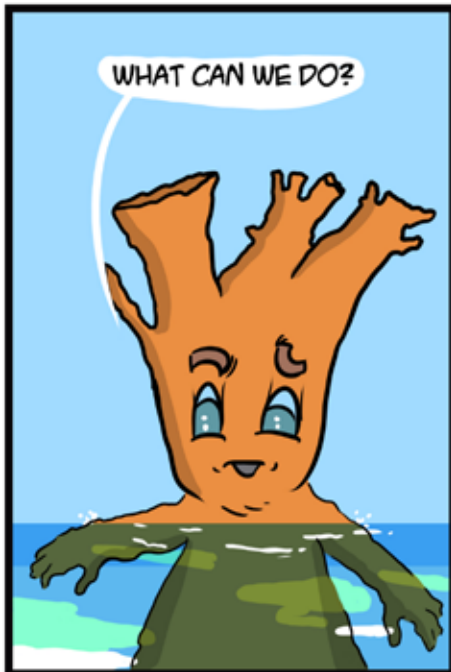
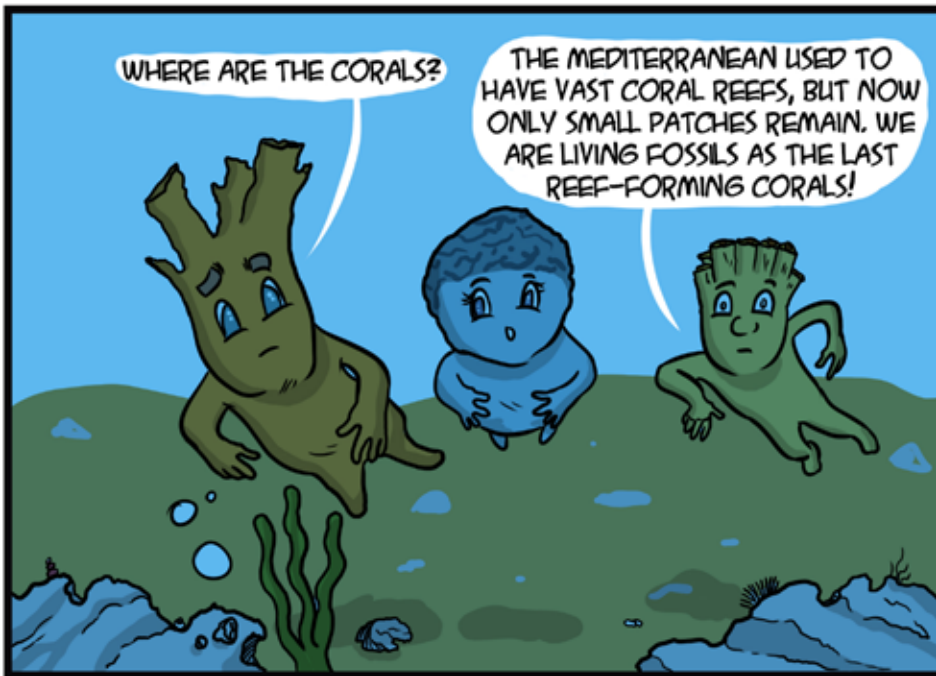
WE CAN HELP TOO, BY RAISING AWARENESS AT SCHOOL AND AT HOME.



IT IS TIME FOR ACTION! LET'S GATHER THE WHOLE COMMUNITY AND START RESTORING THE AREA!







BACK ON LAND, THEY SPREAD OUT TO LOOK FOR PEOPLE TO TALK TO.

HELLO, WE JUST CAME FROM THE SEA AND NOTICED SOME CHANGES. HAVE YOU SEEN THEM TOO?

HEY THERE! YES, WE'VE FISHED HERE FOR GENERATIONS, BUT THE FISH ARE DWINDLING. WE DON'T KNOW WHAT TO DO.

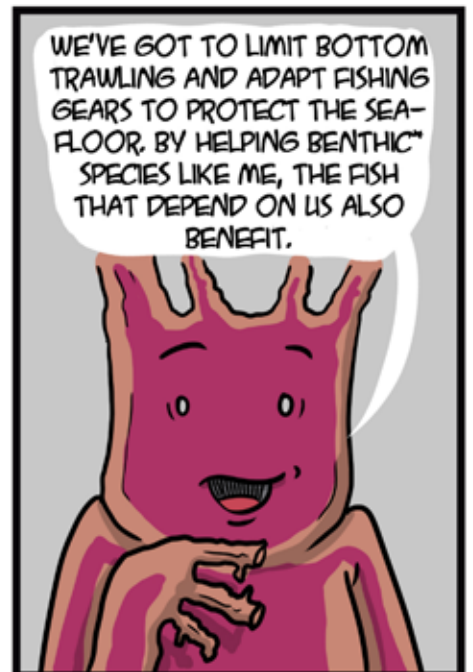
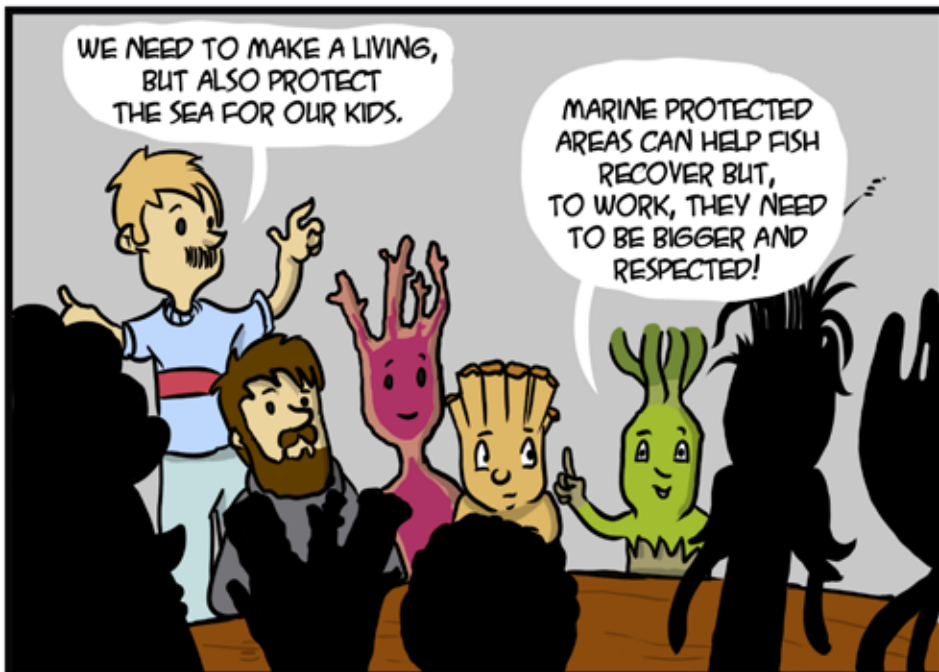
WARMING WATERS AND HARMFUL FISHING AND MOORING PRACTICES ARE DAMAGING MARINE LIFE. WE NEED TO FIND A WAY TO COEXIST.

HI. MARINE PROTECTED AREAS ARE GREAT, BUT SADLY, WITHOUT PROPER ENFORCEMENT, THEY WON'T CUT IT. WE NEED THE SUPPORT OF LOCAL COMMUNITIES!

I KNOW. WE'RE TRYING TO PROTECT THE COAST, BUT IT'S HARD AS MANY RELY ON THE SEA FOR WORK OR FUN. WE NEED EVERYONE TO WORK TOGETHER.

GOOD MORNING! YOU'RE MAKING GOOD PROGRESS IN UNDERSTANDING US, BUT WE NEED POLICY MAKERS TO LISTEN AND TAKE ACTION!

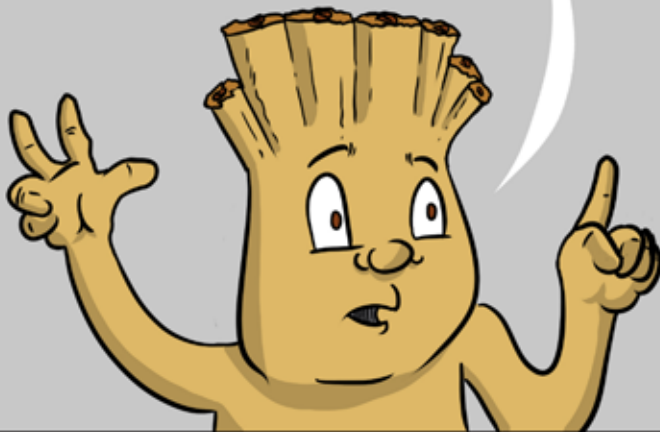
I COMPLETELY AGREE. THE CHALLENGE IS GETTING PEOPLE TO ACT, ESPECIALLY WHEN THERE'S UNCERTAINTY OR THE BENEFITS AREN'T IMMEDIATE.



*BENTHIC REFERS TO ORGANISMS LIVING ON THE OCEAN FLOOR.

WARMING IS ALSO A BIG ISSUE, EVEN FOR US WITH OUR 'REJUVENESCENCE' RECOVERY STRATEGY^{***}. SLOWING DOWN CLIMATE CHANGE IS HARD AS IT REQUIRES GLOBAL CUTS IN GREENHOUSE GAS EMISSIONS, BUT LOCAL ACTIONS TO REDUCE POLLUTION AND OVERFISHING CAN HELP US RECOVER AND ADAPT TO WARMER WATERS.

MARINE PROTECTED AREAS CAN REDUCE LOCAL IMPACTS AND EDUCATION CAMPAIGNS CAN INSPIRE ACTION BY RAISING AWARENESS AND PARTICIPATION!



AFTER THESE DISCUSSIONS, THE COMMUNITY DECIDED TO EXPAND THE MARINE PROTECTED AREA, ADDING FULLY PROTECTED ZONES AND CREATING JOBS TO SUPPORT THIS PLAN AND MONITOR ITS BENEFITS ON PEOPLE AND NATURE.



SEEING THAT LONELY Kelp MADE ME WORRY. LET'S CHECK OUT WHAT'S HAPPENING FURTHER NORTH.



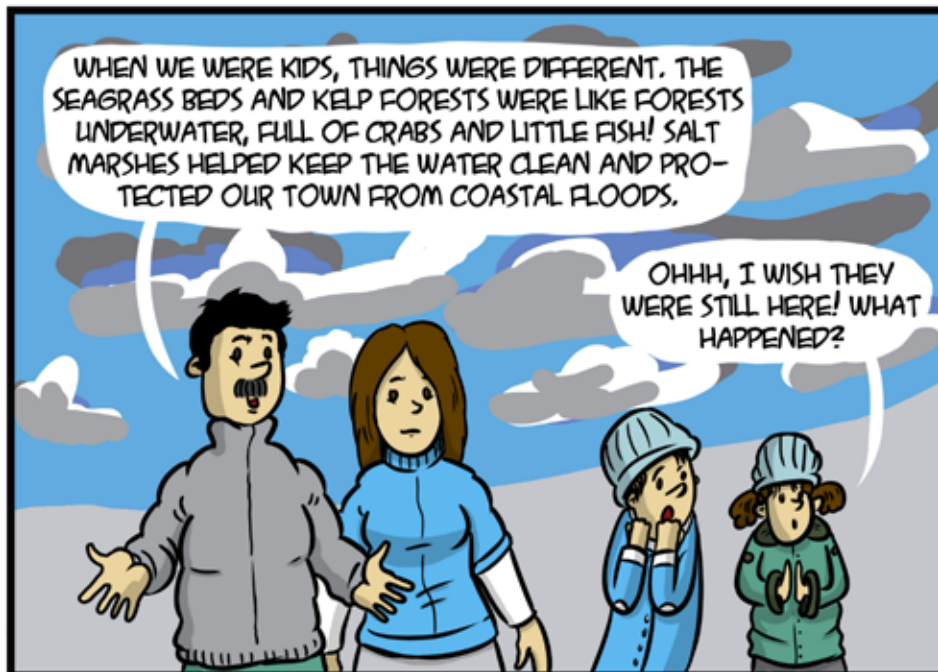
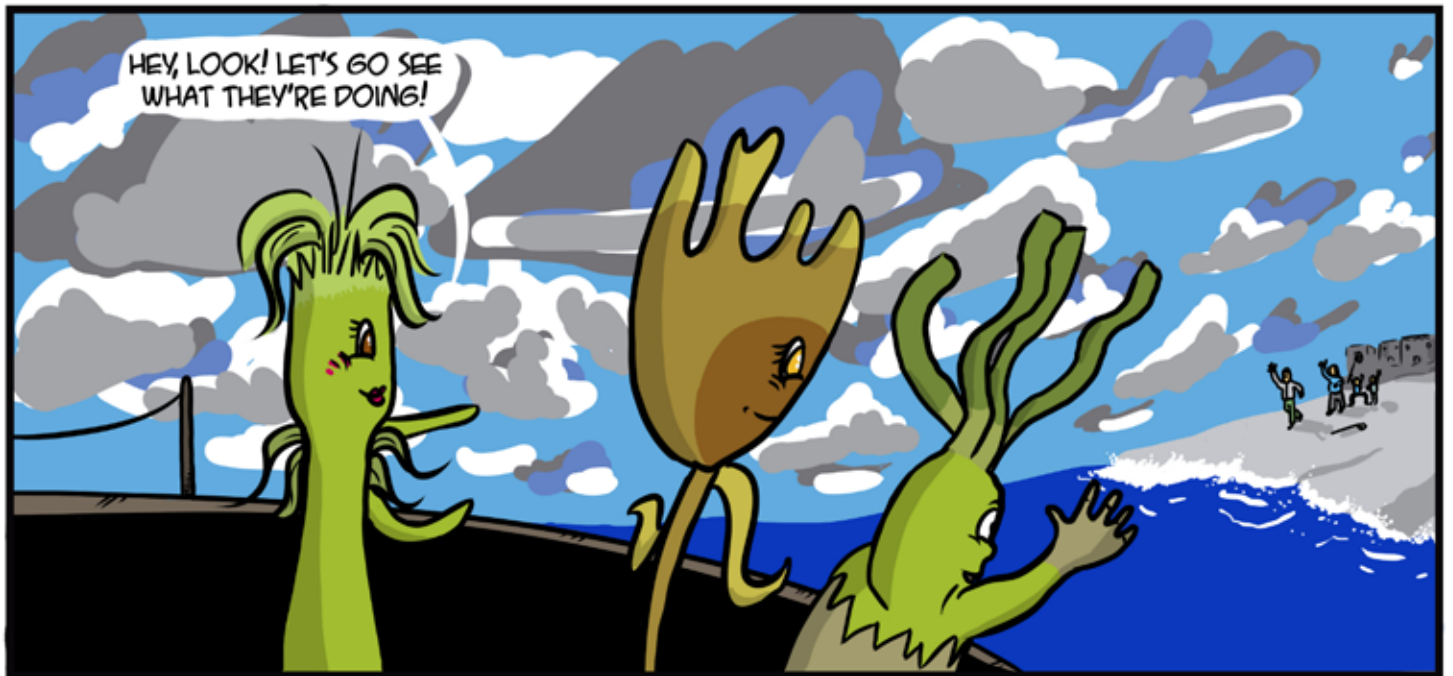
YES! I WANT TO SEE HOW SPARTINA IS HANDLING RISING SEA LEVELS TOO!

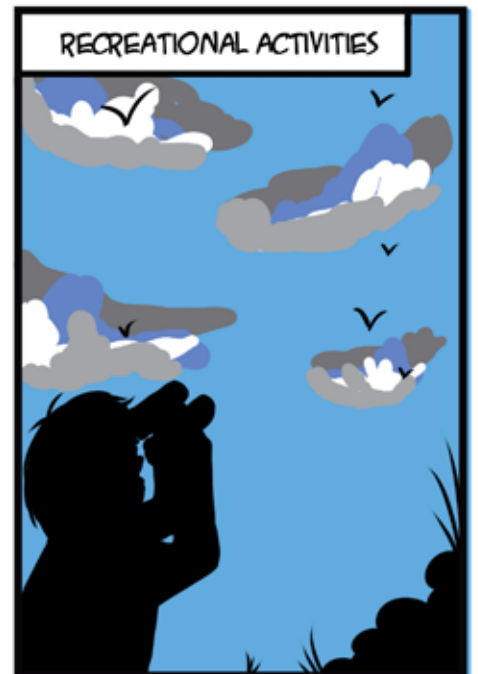
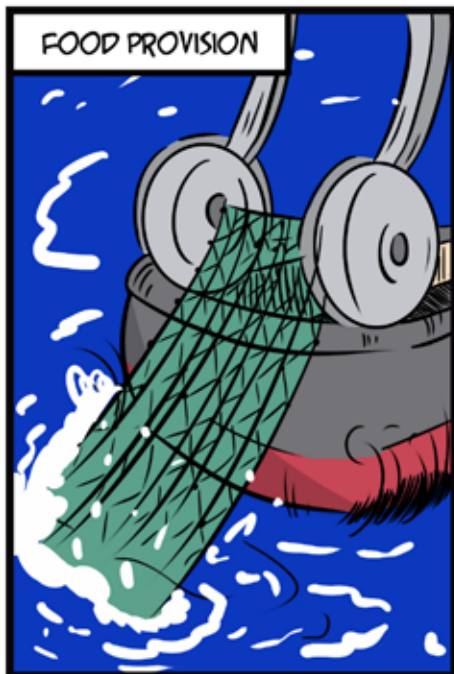
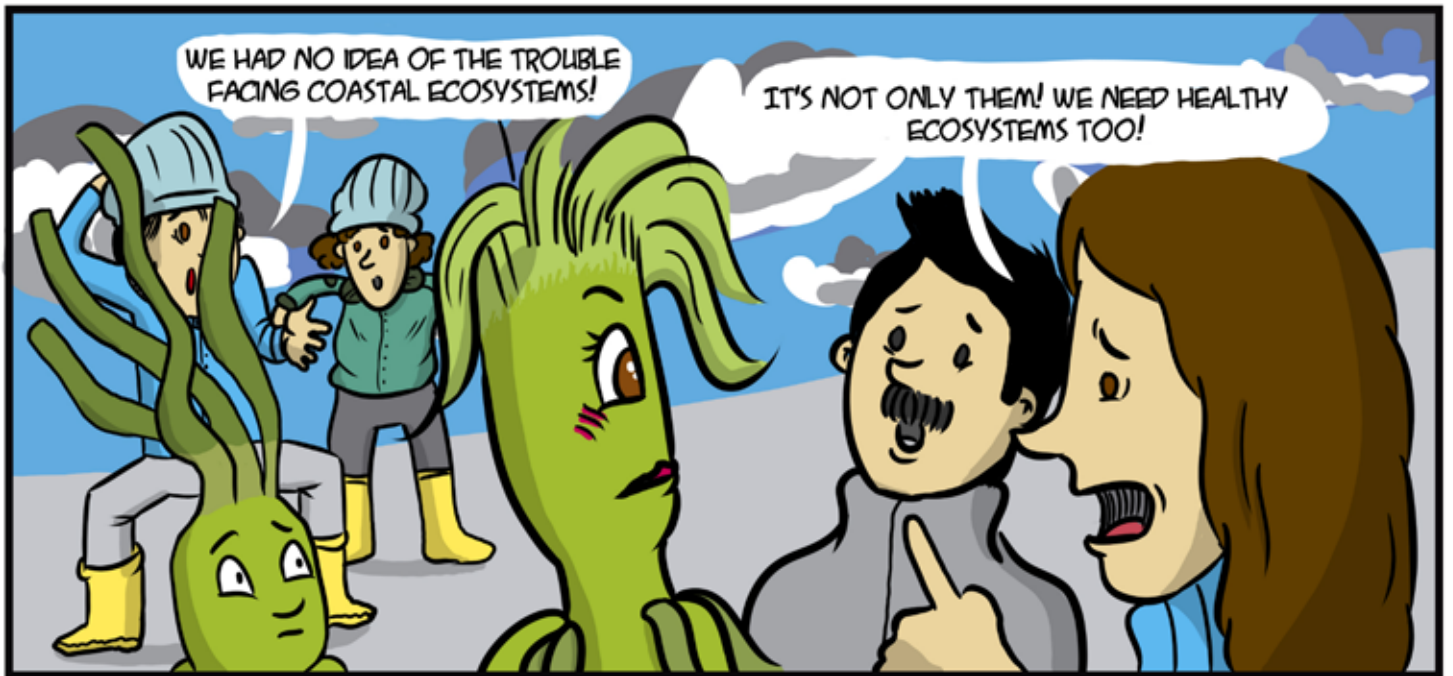


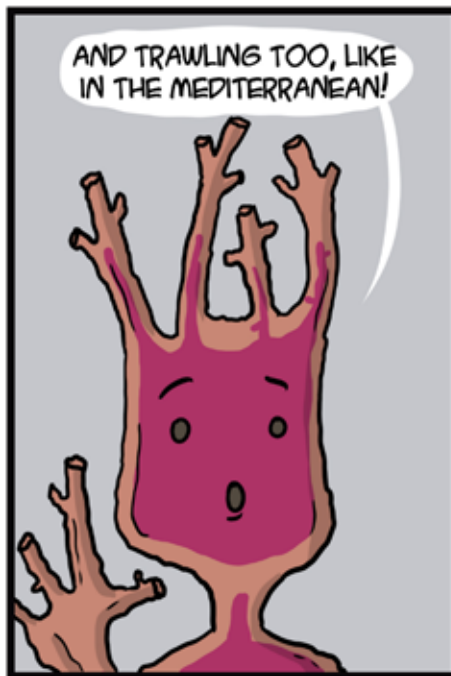
THE FUTURE'S UNCERTAIN, BUT STEPS TO FIND SOLUTIONS IN THE MEDITERRANEAN AND CARIBBEAN OFFER HOPE FOR NORTHERN EUROPE TOO.

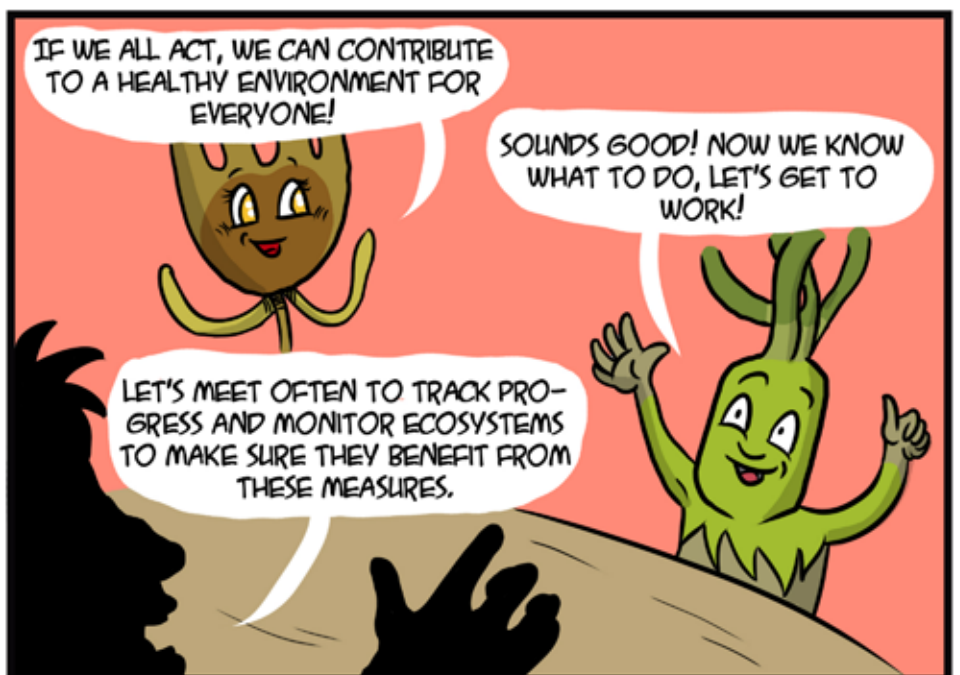


^{***}REFERS TO THEIR ABILITY TO RECOVER OR REGROW AFTER EXPERIENCING STRESS OR DAMAGE.

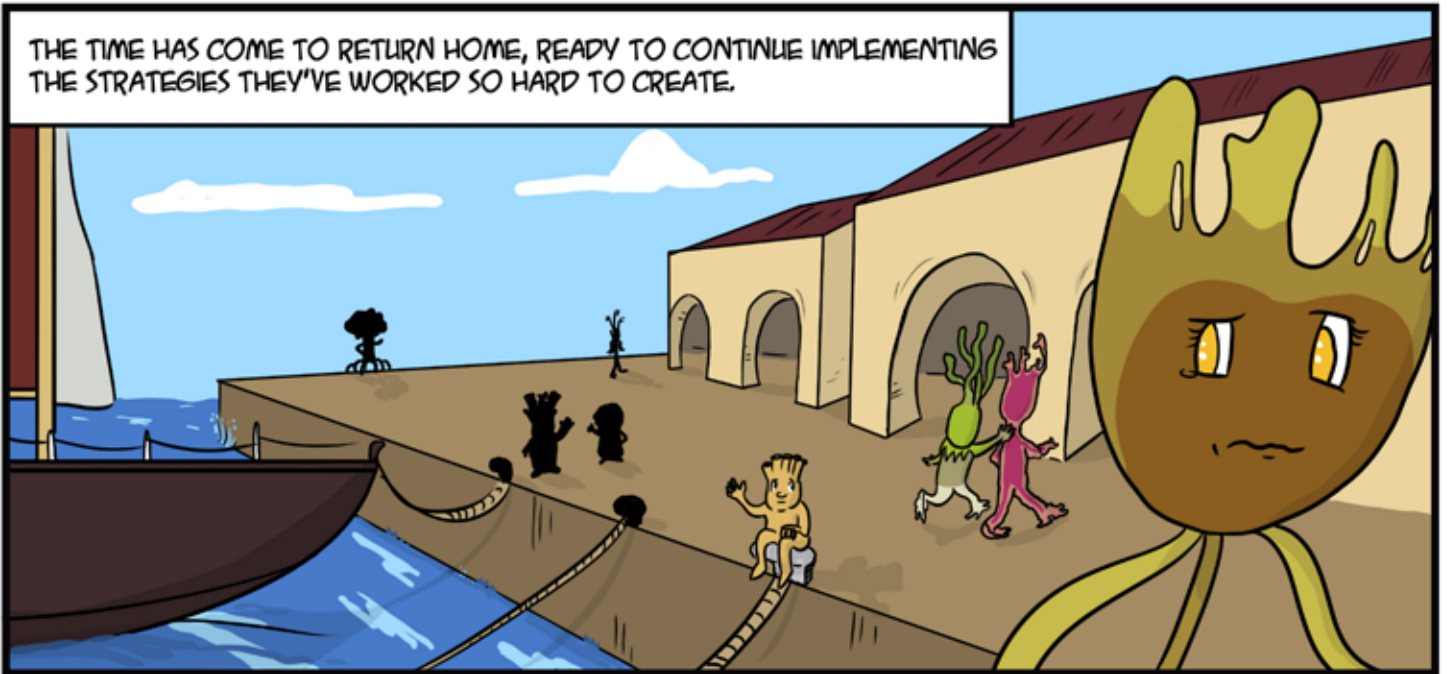






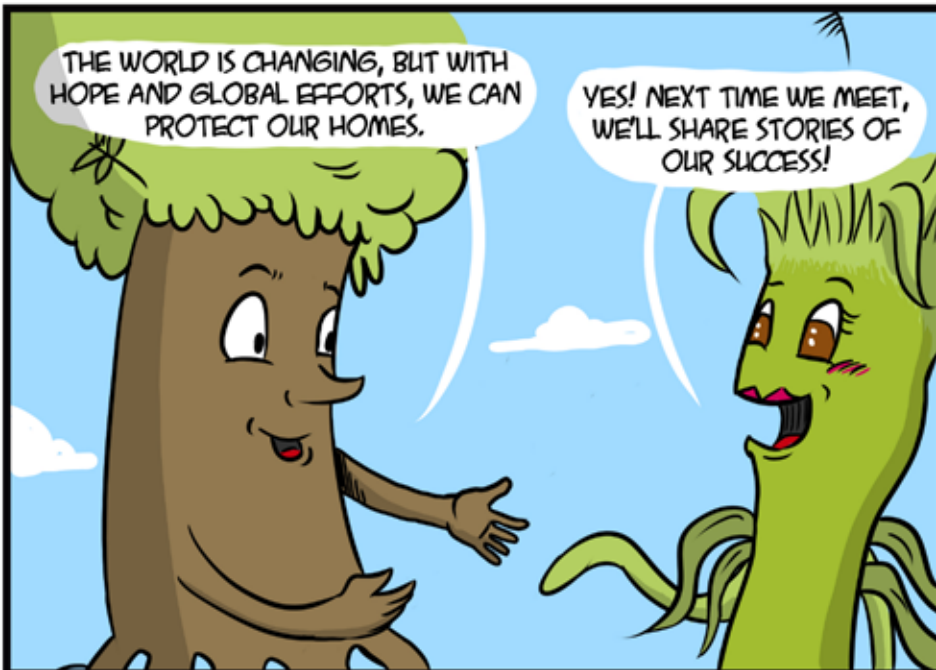


THE TIME HAS COME TO RETURN HOME, READY TO CONTINUE IMPLEMENTING THE STRATEGIES THEY'VE WORKED SO HARD TO CREATE.



THE WORLD IS CHANGING, BUT WITH HOPE AND GLOBAL EFFORTS, WE CAN PROTECT OUR HOMES.

YES! NEXT TIME WE MEET, WE'LL SHARE STORIES OF OUR SUCCESS!



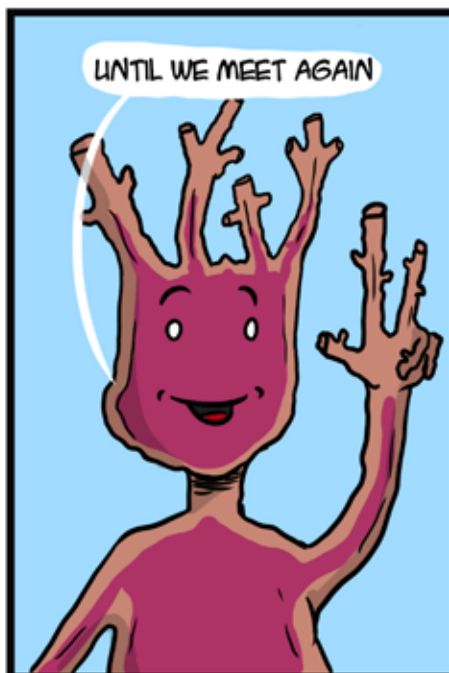
WE MAY LIVE IN DIFFERENT PLACES, BUT OUR SOLUTIONS UNITE US.



LET'S BRING CHANGE TO OUR BACKYARDS!



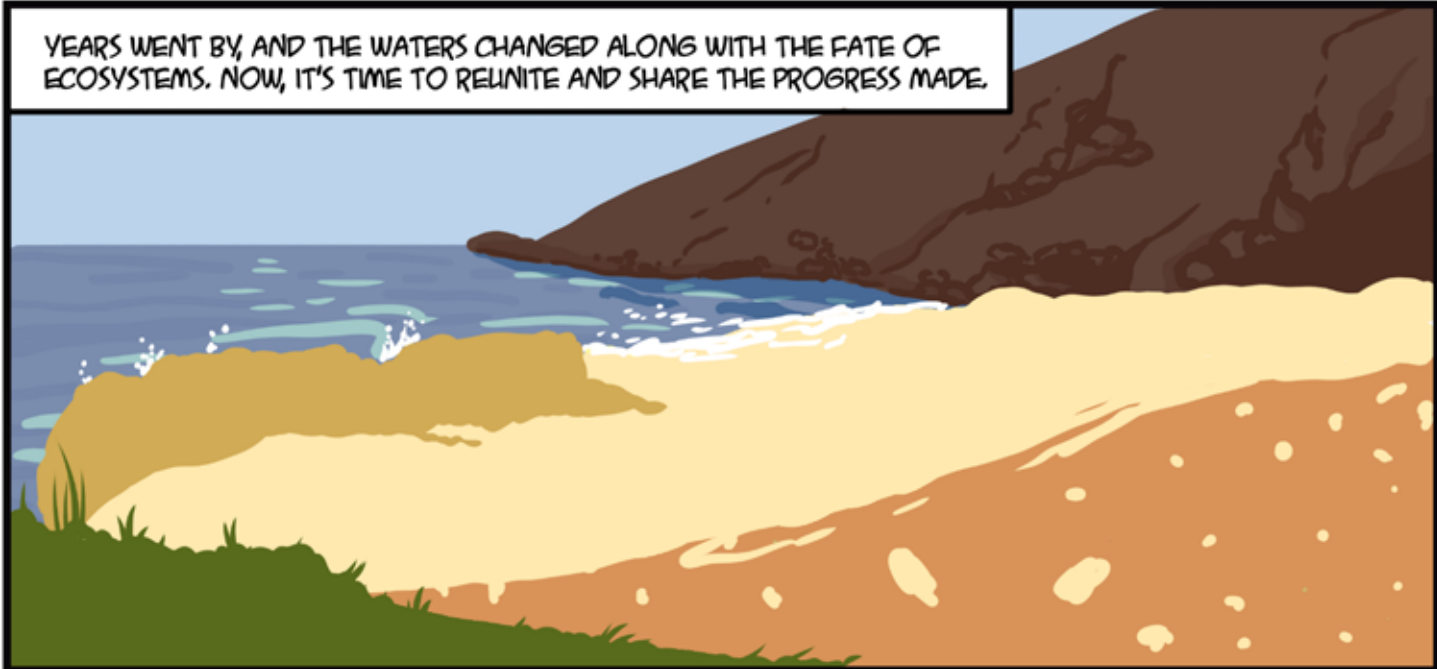
UNTIL WE MEET AGAIN



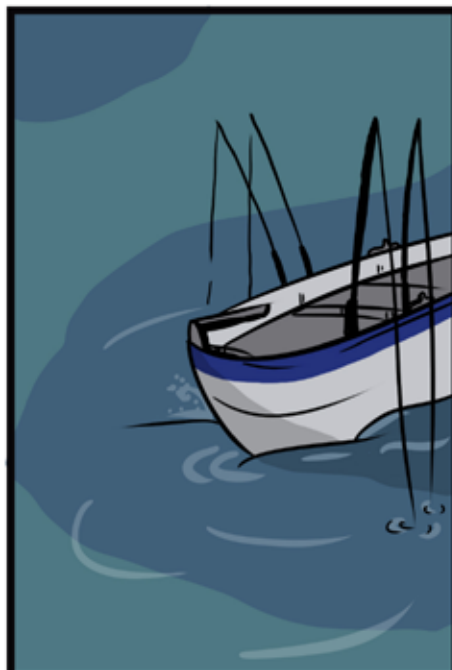
THOUGH THE JOURNEY ENDS HERE, THEIR WORK IS JUST BEGINNING.



YEARS WENT BY, AND THE WATERS CHANGED ALONG WITH THE FATE OF ECOSYSTEMS. NOW, IT'S TIME TO REUNITE AND SHARE THE PROGRESS MADE.



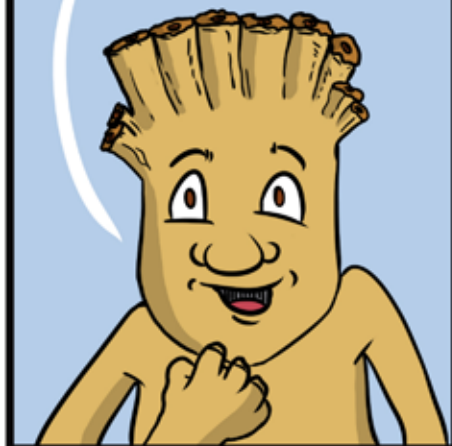
WITH SUSTAINABLE FISHING METHODS, OUR COMMUNITY RESTORED ECOSYSTEMS WHILE LOOKING AFTER THEIR LIVELIHOODS. THE MARINE PROTECTED AREAS ALSO MADE AN IMPACT!

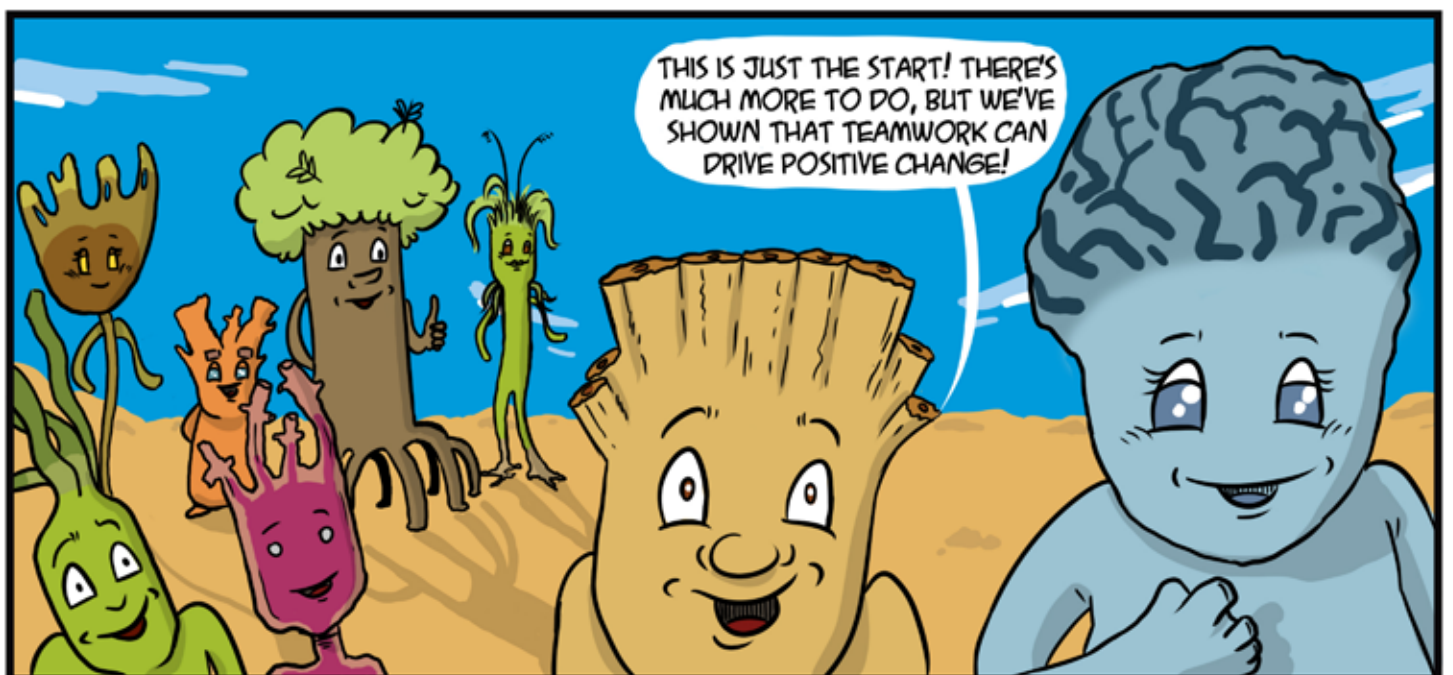
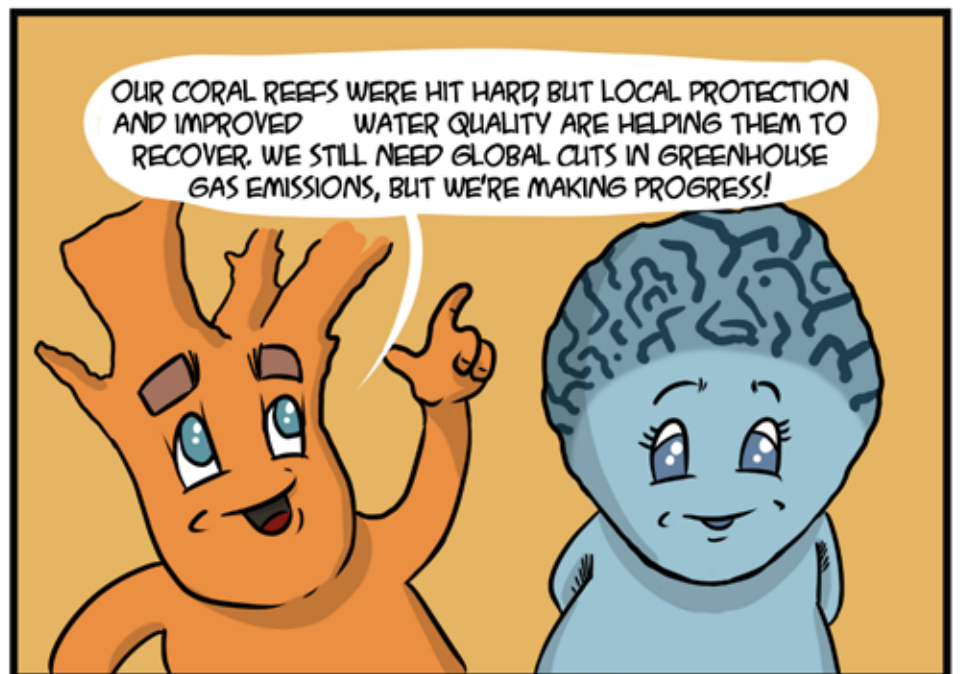
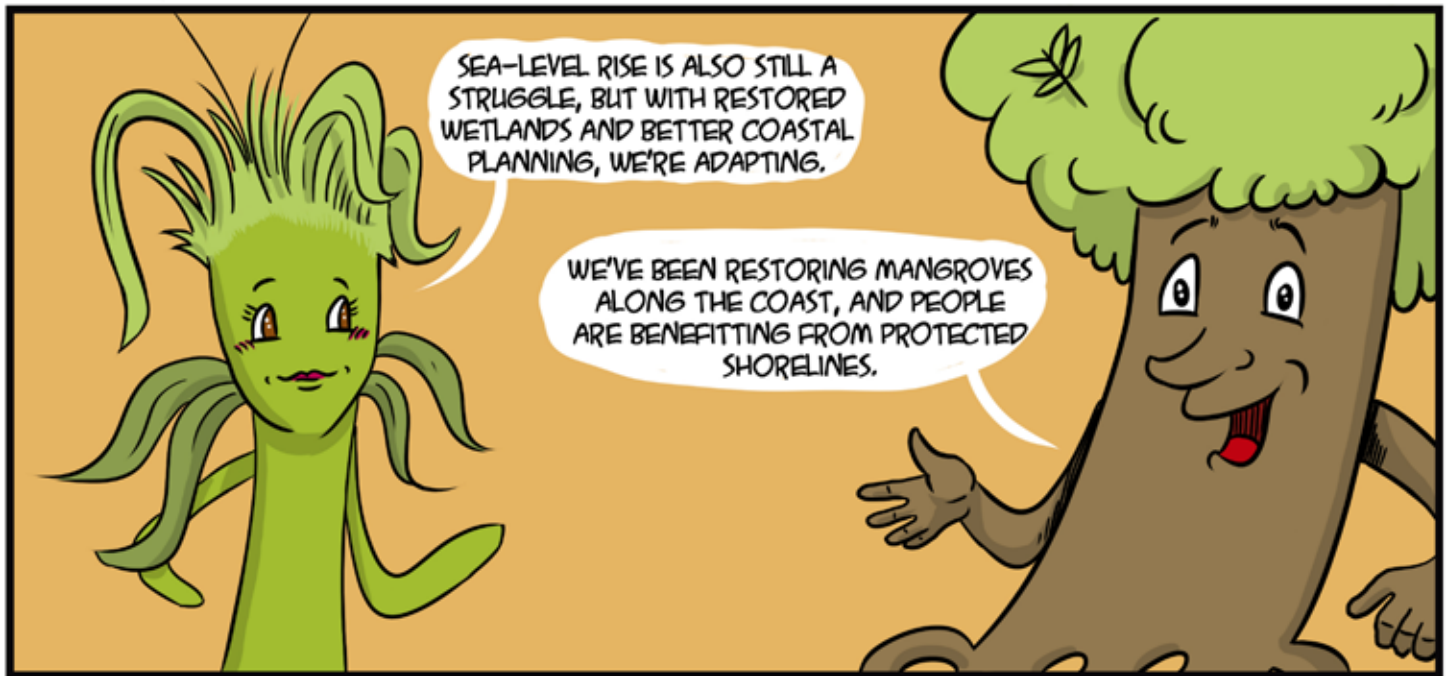


THANKS TO NEW REGULATIONS IN THE MARINE PROTECTED AREA, BOATS NOW USE DESIGNATED MOORING ZONES, ALLOWING SEAGRASS BEDS TO THRIVE.



HEATWAVES ARE STILL TOUGH, BUT WITH FEWER LOCAL STRESSORS, WE HAVE A BETTER SHOT AT SURVIVING AND BOUNCING BACK.





THEY'VE COME A LONG WAY, BUT OCEAN CHALLENGES REMAIN. BY RAISING AWARENESS OF THE IMPORTANCE OF MARINE AND COASTAL ECOSYSTEMS FOR PEOPLE'S WELLBEING AND THE NEED FOR ACTION, A BRIGHTER FUTURE FOR FUTURE GENERATIONS IS POSSIBLE. TOGETHER, PEOPLE AND NATURE CAN THRIVE.



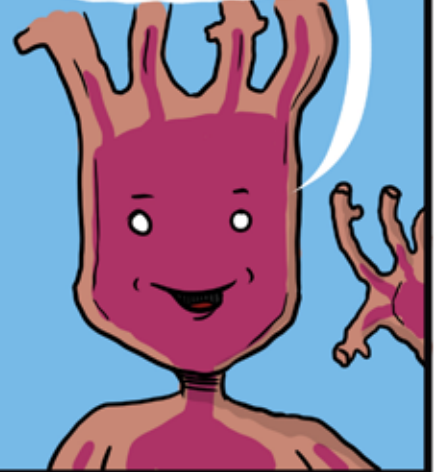
WE'VE MADE PROGRESS, BUT OCEANS AND PEOPLE NEED US NOW MORE THAN EVER.



IF WE STICK TOGETHER, ECOSYSTEMS WILL THRIVE AGAIN. THE FUTURE IS BRIGHT IF WE STAY ON TRACK.



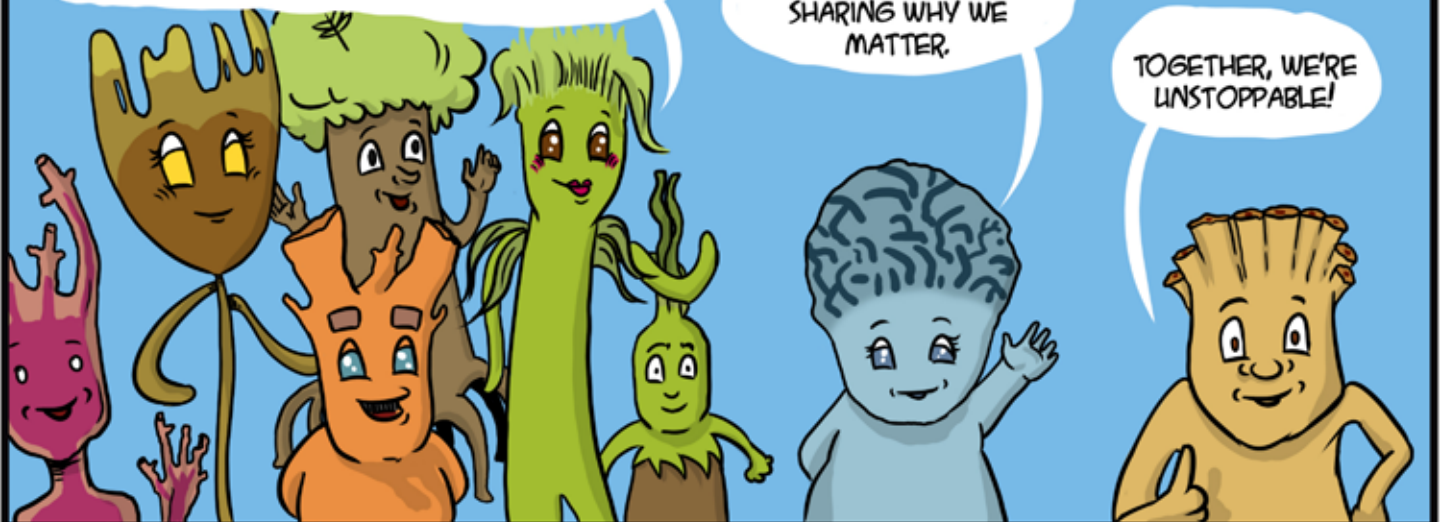
YES, WE MUST KEEP THE MOMENTUM GOING, ESPECIALLY AS SLOW-GROWING SPECIES LIKE ME NEED TIME TO RECOVER!



AND LET'S REMEMBER, WE NEED STRONG TEAMWORK WITH PEOPLE AND GLOBAL EFFORTS TOO.

ABSOLUTELY! LET'S KEEP SHARING WHY WE MATTER.

TOGETHER, WE'RE UNSTOPPABLE!



THOUGH THEIR JOURNEY TOGETHER ENDS, THEIR WORK CONTINUES. THE SEAS ARE VAST, BUT UNITED IN PURPOSE, THEY WILL RISE TO MEET THE CHALLENGES AHEAD

TO BE CONTINUED IN THE CURRENTS OF COASTAL CHANGES...

THIS STORY HAS TAKEN YOU ON A JOURNEY ACROSS OCEANS AND CONTINENTS, EXPLORING THE MANY MANAGEMENT MEASURES AVAILABLE TO PROTECT, RESTORE, AND SUSTAINABLY MANAGE OUR MARINE AND COASTAL ECOSYSTEMS WHILE ADDRESSING SOCIETAL CHALLENGES. FROM THE ESTABLISHMENT OF MARINE PROTECTED AREAS TO HABITAT RESTORATION AND SUSTAINABLE FISHING PRACTICES, THESE NATURE-BASED SOLUTIONS OFFER HOPE FOR ALL – HUMANITY AND NATURE ALIKE.

HOWEVER, WHILE THESE LOCAL ACTIONS ARE CRITICAL, THEY ARE NOT ENOUGH. TRUE RESILIENCE AND RECOVERY FOR OUR OCEANS REQUIRE A TRANSFORMATIVE CHANGE – ONE THAT ADDRESSES THE ROOT CAUSES OF THE ENVIRONMENTAL CRISES WE FACE. WITHOUT TACKLING CLIMATE CHANGE AND DRASTICALLY REDUCING GREENHOUSE GAS EMISSIONS, THE IMPACTS ON OUR ECOSYSTEMS AND COMMUNITIES WILL KEEP INTENSIFYING. THE FUTURE OF OUR OCEANS DEPENDS ON THE DECISIONS WE MAKE TODAY. IT IS UP TO ALL OF US – INDIVIDUALS, COMMUNITIES, AND NATIONS – TO COME TOGETHER AND CHART A NEW COURSE FOR A SUSTAINABLE, THRIVING WORLD.







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