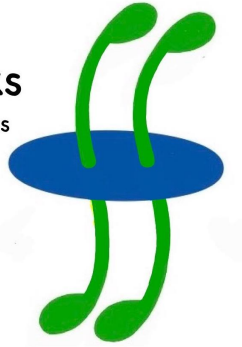


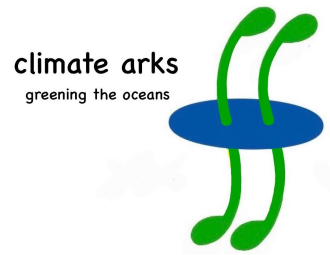
climate arks
greening the oceans



CLIMATE ARKS

**A compelling nature-based solution
to address
rapid climate change**

CLIMATE CHANGE IS UPON US

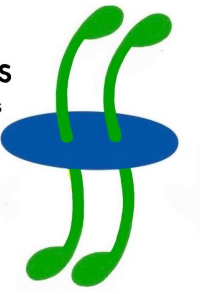


- Humanity is on a train accelerating towards a cliff-edge
- Scientists all over the world are worried
 - We might have only 10 years or less to solve the problem
- If the train reaches the cliff-edge it will be disastrous
 - Accelerating sea-level rise
 - Frequent terrible storms, Heat waves
 - Food shortages, Unstoppable mass migration
 - Widespread conflict
 - Species extinction
- We must act now.



BOUNTIFUL OCEAN LOST

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- For millions of years the ocean was full of life
- In 1497 John Cabot's voyage crew said:
 "you could scoop fish up from the sea in baskets"
- But then whales were hunted to near extinction
 - Started 400 years ago
- Today most wild fish have also disappeared
 - Overfishing
- This loss of biomass means that the oceans can't function properly



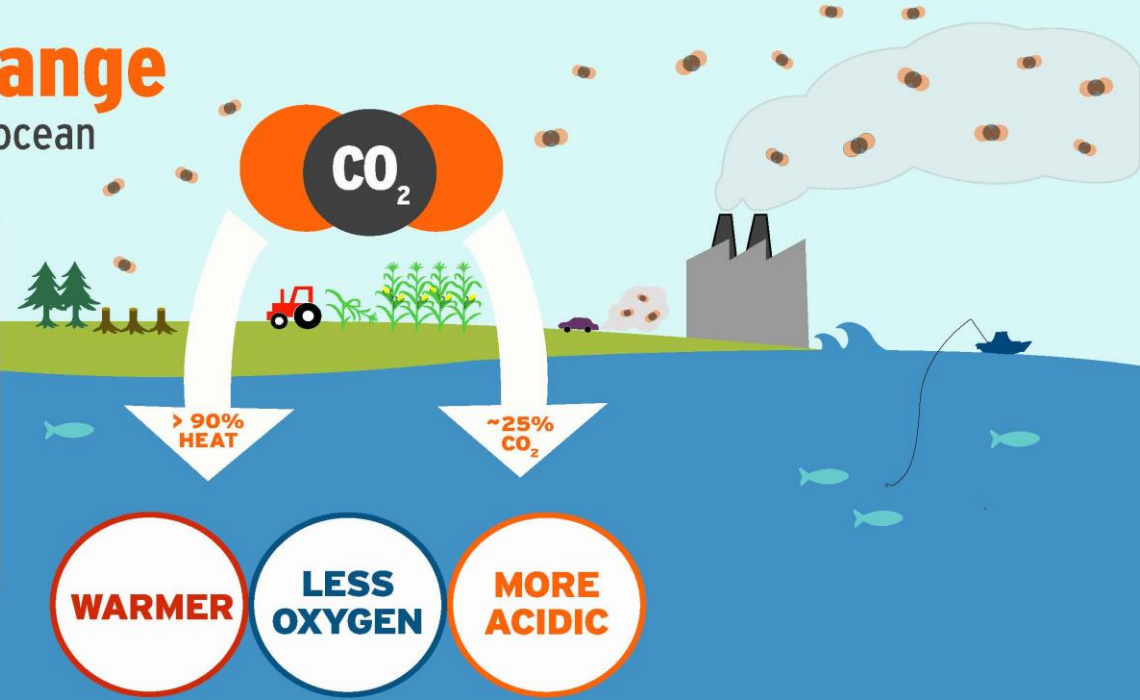
EVERYONE AGREES WE HAVE A PROBLEM



Climate Change

A triple threat for the ocean

Burning fossil fuels, deforestation and industrial agriculture release carbon dioxide (CO₂) and other heat-trapping gases into our atmosphere, causing our planet to warm. The ocean has buffered us from the worst impacts of climate change by absorbing more than 90 percent of this excess heat and about 25 percent of the CO₂, but at the cost of causing significant harm to marine ecosystems.



SEA LEVEL
Sea level rise is accelerating, flooding coastal communities and drowning wetland habitats.

BLEACHING
Warm-water coral reefs (marine biodiversity hotspots) could be lost if the planet warms by 2°C (3.6°F).

TOXIC ALGAE
Larger and more frequent blooms are making fish, birds, marine mammals and people sick.

HABITATS
Lower oxygen levels are suffocating some marine animals and shrinking their habitats.

ACIDIFICATION
More acidic water harms animals that build shells, such as corals, clams, and oysters.

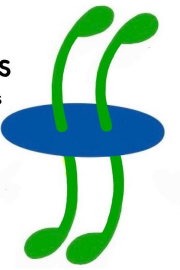
FISHERIES
Disruptions in fisheries affect the marine food web, local livelihoods, and global food security.

Source: IPCC, 2019: Special Report on the Ocean and Cryosphere in a Changing Climate (SROCC)



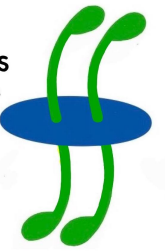
CLIMATE DEPENDS ON SEA LIFE

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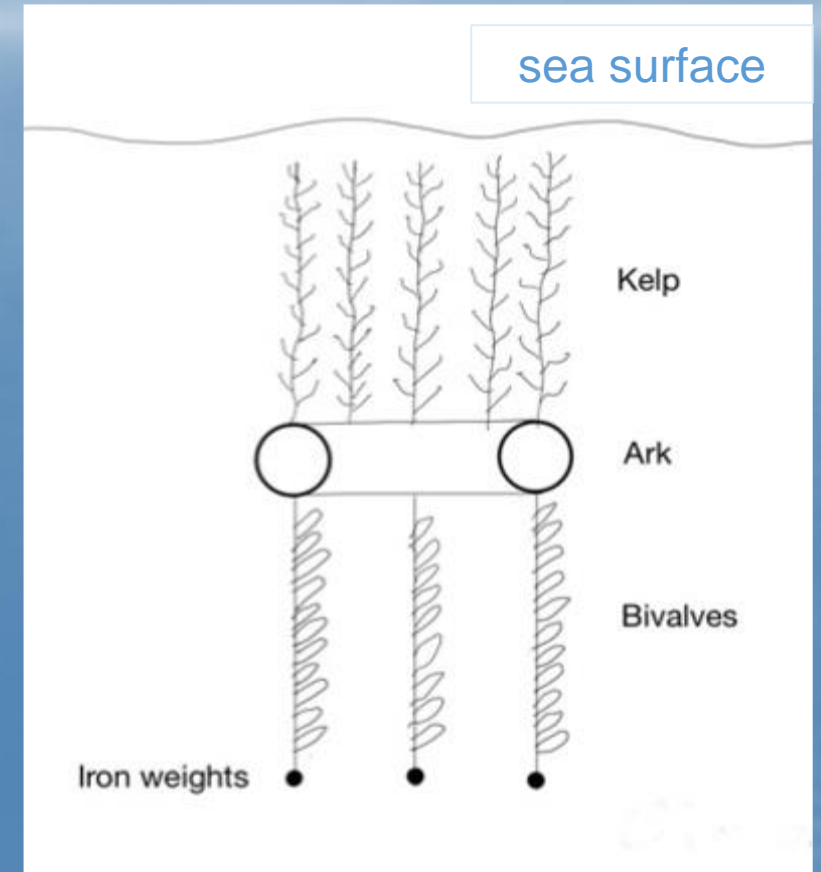
- Sea life moves CO₂ from the atmosphere
 - To ocean sediments
 - Planet Earth was about to enter another ice age
- Whales brought nutrients up to the ocean surface
- Today huge areas of ocean are like deserts
- Almost nothing grows there





OUR SOLUTION: CLIMATE ARKS

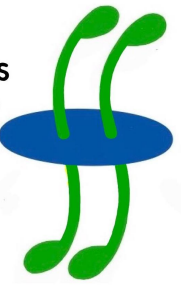
- Floating, non-toxic, nutrient rich ocean habitats
 - Shellfish, corals, kelp seaweed and sponges will grow on them
- Cycle down and up between surface and seabed
- Sink quickly when overloaded
- On the seabed:
 - Transfer their carbon load
 - Gather nutrients
 - Then float back up



drawing protected by ©

CLIMATE RELEVANT

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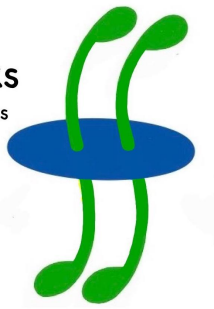


- Annual deployment:
 - 300,000 tons of iron nutrient
 - 3 million tons of devices
 - To nutrient poor ocean areas
- Draw down extra 40 Gt CO₂ per year
 - Current annual rate of human caused CO₂ emissions



CLIMATE ARKS WILL ALSO

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- Feed wild fish
 - They will multiply again – if protected
- Clean pollution from the ocean surface
 - Move micro-plastics and mercury to the seabed
- Make clouds, to cool the warming oceans
- Dissolve away after 10-20 years



NEXT STEP

- Contact
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- +44(0)2032879234

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