



# Marine Plastic Pollution

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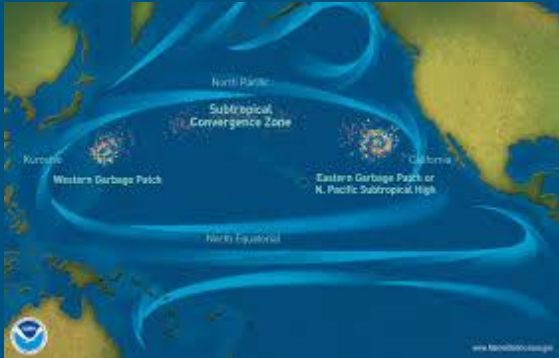


# Marine Plastic Pollution: Issue & Importance

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- Plastics that are used in our everyday lives are not being cleaned up properly, and as a result are being found in our oceans and marine ecosystems
- Marine Plastic Pollution is primarily prevalent in the “Great Pacific Garbage Patch”, which is a large region of the ocean spanning from the West Coast of North America all the way to Japan, that is heavily infected with marine plastic pollution
  - In this region alone, millions of micro plastic exist in just a square mile of the ocean
- Marine plastic pollution is particularly important because it threatens the biodiversity of our marine ecosystems
  - Biodiversity is a necessity to our society because human activity and resources, medical advances, and various ecosystems are all dependent on it
  - Marine plastic pollution results in the loss of 100,000 marine organisms every year
  - The biodiversity of sea turtles, seals, plankton, and algae are particularly threatened by marine plastic pollution

# Marine Plastic Pollution: Issue & Importance



# Marine Plastic Pollution: Loss of Marine Biodiversity- Macroplastics & Microplastics

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- Both macroplastics and microplastics are surfaced throughout the ocean, and play a large role in threatening the growth of marine biodiversity
- Macroplastics are detrimental to marine biodiversity, as as it can get marine life caught within its grasp, making them immobile and die of starvation, or latch around their necks and cause them to suffocate and die
- Microplastics are just as dangerous as macroplastics, if not even more dangerous
- Microplastics can be consumed by fish, which in turn, release harmful toxins throughout the body and increases its toxicity levels
- With the existence of both Macroplastics & Microplastics in our oceans and marine ecosystems, marine plastic pollution will only expand, and the loss of marine biodiversity will only continue exponentially

# Marine Plastic Pollution: Mitigating & Bringing Attention to the Issue

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- Taking action
  - We personally took it as a challenge to diminish our use of plastic products and to recycle all plastic products that we used or came in contact with
  - We cleaned up the garbage and plastic products that inhabited Campus Beach and Goleta Beach
- Educating others
  - We engaged in meaningful conversations with students in our early start program, as well as current UCSB students
  - We hung fliers up around different parts of the UCSB campus, including academic buildings, bike racks, and the university center
- Informing authority figures to take action
  - We contacted political figures via email and letters, including Barack Obama, Hillary Clinton, and Donald Trump

# Marine Plastic Pollution: Taking Action

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# Marine Plastic Pollution: Educating Others

## Help Save Biodiversity



Biodiversity is a necessity to our society because...

1. It provides our society with ample food, drinking water, fuel, and shelter
2. It enables ecosystems to function properly
3. It can create different medicines and vaccines which can treat humans

Biodiversity is diminishing as you read this poster, but can be saved by being green (reduce, reuse, recycle) and spreading this message...

This will prevent and diminish marine plastic pollution- which results in the loss of 100,000 marine creatures every year



Join the fight against the loss of biodiversity and the presence of marine plastic pollution by taking action!

## Marine Plastic Pollution

**What is it?** Marine Plastic Pollution is the accumulation of plastics that are used in our everyday lives and are not being cleaned up properly, which results in an increasing amount of plastics in our oceans and marine ecosystems.



**Where does it take place?** Marine Plastic Pollution occurs in practically every region of the ocean, however, it is most prevalent in the "Great Pacific Garbage Patch", which spans from the West Coast of North America to Japan. In this region alone, millions of microplastics exist in just a square mile of the ocean.



**What is the importance of it?** Marine Plastic Pollution threatens marine biodiversity, which offers countless benefits to our growing world. The biodiversity of sea turtles, seals, plankton, and algae are particularly threatened by marine plastic pollution.



# Marine Plastic Pollution: Informing Authority Figures to Take Action

Dear Hillary Clinton,

A striking issue in our society today is marine plastic pollution. Marine plastic pollution is the garbage and plastic that our society neglects, and as a result is left in our oceans and marine ecosystems. Marine plastic pollution is primarily prevalent in the "Great Pacific Garbage Patch", which spans from the West Coast of North America all the way to Japan. In this region, millions of micro plastic exist in just a square mile of the ocean. This issue is particularly important to our society, because of the fact that it negatively affects marine ecosystems and marine organisms: thus threatening the biodiversity on our planet. Biodiversity is vital to the success of our society because human activity and resources, medical advances, and various ecosystems are all dependent on it. For all these reasons, it is evident that biodiversity is a necessity to our planet. As a prospective presidential candidate, I am asking that you consider these issues presented and create an action plan to resolve them.

Sincerely,  
A group of biodiversity activists

Dear Donald Trump,

A striking issue in our society today is marine plastic pollution. Marine plastic pollution is the garbage and plastic that our society neglects, and as a result is left in our oceans and marine ecosystems. Marine plastic pollution is primarily prevalent in the "Great Pacific Garbage Patch", which spans from the West Coast of North America all the way to Japan. In this region, millions of micro plastic exist in just a square mile of the ocean. This issue is particularly important to our society, because of the fact that it negatively affects marine ecosystems and marine organisms: thus threatening the biodiversity on our planet. Biodiversity is vital to the success of our society because human activity and resources, medical advances, and various ecosystems are all dependent on it. For all these reasons, it is evident that biodiversity is a necessity to our planet. As a prospective presidential candidate, I am asking that you consider these issues presented and create an action plan to resolve them.

Sincerely,  
A group of biodiversity activists

president@whitehouse.gov

Marine Plastic Pollution & Biodiversity

Dear President Obama,

A striking issue in our society today is marine plastic pollution. Marine plastic pollution is the garbage and plastic that our society neglects, and as a result is left in our oceans and marine ecosystems. Marine plastic pollution is primarily prevalent in the "Great Pacific Garbage Patch", which spans from the West Coast of North America all the way to Japan. In this region, millions of micro plastic exist in just a square mile of the ocean. This issue is particularly important to our society, because of the fact that it negatively affects marine ecosystems and marine organisms: thus threatening the biodiversity on our planet. Biodiversity is vital to the success of our society because human activity and resources, medical advances, and various ecosystems are all dependent on it. For all these reasons, it is evident that biodiversity is a necessity to our planet. As the President of our great nation, I am asking that you consider these issues presented and create an action plan to resolve them.

Sincerely,  
A group of biodiversity activists



# Marine Plastic Pollution: Making the Changes

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- In the beginning of the project, it was difficult for our group to adjust to making these changes
  - For example:
    - It felt awkward to discuss with other students the implications behind marine plastic pollution, and the importance of biodiversity
    - With a time consuming schedule, it was difficult to make time to actively search for recycling bins, and to look for areas of campus and different beaches to clean up
- However, as time passed by completing tasks for the project became more natural and routinely
  - As we became more comfortable about completing these tasks, and we were able to manage our time better
- In the final stages of the project, we found it very easy to make these changes
  - In part, because our group became very passionate about the issue of marine plastic pollution, and the importance of marine biodiversity

# Marine Plastic Pollution: Our Changing View of Biodiversity

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- In the beginning of the project, our group seemed very indifferent about the topic of marine biodiversity
  - This was mainly in part to our busy schedules!
  - Additionally, our passion for this topic had not fully developed
- However, as our group committed more time to the project and completed more research, we began to thoroughly understand the importance of biodiversity
  - This enabled our group to care much more about the importance of biodiversity
- In the final stages of the project, our group's view of biodiversity dramatically changed as we became increasingly passionate about the topic
  - This enabled our group to make more of an impact towards mitigating and bringing attention to the issue

# Citations

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