The Great Pacific Garbage Patch



Scientists and environmentalists have described a vast patch of floating rubbish in the Pacific Ocean. A large proportion of waste ends up in the ocean due to the North Pacific gyre. This is a current that accumulates rubbish and deposits it into a massive area known as the Great Pacific Garbage Patch.

Around 80% of the debris comes from North America and Asia, while the remaining 20% comes from boats, shipping containers and oil rigs. While there are many different types of rubbish discarded into the ocean, plastic makes up the majority as it is cheap to produce and durable. The problem with plastic is that it does not biodegrade, it simply breaks down into smaller and smaller pieces.

The Garbage Patch has been described in different ways. *'The Pacific Garbage Patch is a huge environmental problem, so big that it is becoming visible from space.'* Hewson (2013:118).

However, others suggest that this is not true, and an accurate description of the problem is required. According to Edwards (2015), plastic breaks down into smaller pieces called microplastic which is more worrying as fish and other marine life will ingest it. Lynott & Turner (2014), suggest that as the population expands and more rubbish is dumped into our oceans, this problem is going to get bigger and microplastic will begin to enter the human food chain and could potentially be catastrophic for peoples' health.

The dense microplastic cloud in the water blocks light, penetrating to the deeper levels of the ocean, which in turn prevents plankton and algae growth. Plankton is a major source of food for small marine life and it is on these that larger fish such as tuna depend. So, the potential for damage to the entire marine food web is high.

Another problem is that plastic both absorbs and leaks pollutants. As it breaks down, plastic releases colorants and chemicals into the water; an example is BPA, which has known health side effects. Plastic also absorbs PCB, which can enter the food chain when the plastic is eaten by marine life.

The situation is further compounded by the question of who is responsible for the Garbage Patch. No one country is willing to take on that responsibility, so it is left to environmental organisations to investigate and address this. By all accounts, it cannot be cleaned up as it is almost 70 years of rubbish; microplastic is tiny and it is dispersed over a large remote area. Cash (2016:76) suggests a united approach to minimising plastic waste stating: *'To date only 8% of plastic is recycled, and with plastic production expected to triple in the coming decades, recycling must be a top priority for governments, environmentalists and each and every one of us.'*

References

Cash, J. (2016). *The Environmentalist*. Library Press: London, 73-79.
Edwards, M.O. (2015). *The Facts of the Great Pacific Garbage Patch*. Bookers: London.
Hewson, P. (2013). *Plastic; an international problem*. Dodo: Melbourne, 117-120.
Lynott, P. & Turner, T. (2014). *Microplastic Everywhere*. COP: New York.

1 What would be the best title for this text?
   - a The problem of the Great Pacific Garbage Patch
   - b Whose responsibility is the Great Pacific Garbage Patch?
   - c A plastic soup
   - d Microplastics – a global problem

2 What is the North Pacific gyre?
   - a The place where the rubbish accumulates
   - b The ocean current that carries the rubbish
   - c Circulating sea

3 Why did the author not use direct quotes for some of the references?
   - a She didn't know exactly what they said.
   - b She paraphrased the words so didn't need to.
   - c They were not as important as the direct quotes.

4 How many references were there in the text?

5 How many direct quotes were in the text?

LIVEWORKSHEETS