



#HALONGCLEANUP

JOIN THE FIGHT FOR A HEALTHY OCEAN

Out of Sight – Out of Mind



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Clean Up Data

- ❖ Ha Long now mapped with Ocean Conservancy contributing to wider study of ocean pollution
- ❖ 61% F and 39% M
- ❖ 60% Hanoi / 33% Quang Ninh / 7% Other Provinces
- ❖ 40% Students / 24% Tourism / 10% Environmentalists / 26% Others
- ❖ 1.2 km of coastline cleaned
- ❖ 245 Bags Collected
- ❖ Estimated to weigh 735 kg
- ❖ Comprising of circa 7500 pieces of garbage
- ❖ Polystyrene biggest contributor on the day



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Items	#	Percentage (in compare to total of 7512 items)
Food Wrappers (candy, chips, etc.) Bao gói thực phẩm	306	4%
Construction Materials Vật liệu xây dựng/	386	5%
Foam Pieces (<2.5cm) Mảnh xốp -	390	5%
Beverage Bottles(Plastic)/Chai nhựa R/	510	9%
Polystyrens (hard plastic) (Nhựa, dẻo, xốp (NR))	2912	39%



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Polystyrene 'the' Problem

- ❖ The polystyrene manufacturing process named as the 5th largest creator of hazardous waste (EPA)
- ❖ Research identified 57 chemical byproducts released during the combustion of polystyrene foam
- ❖ The biggest environmental health concern associated with polystyrene is the danger associated with Styrene, the basic building block of polystyrene
- ❖ Styrene is classified as a possible human carcinogen by the EPA and by the International Agency for Research on Cancer (IARC)
- ❖ Carcinogens are substances that are capable of causing cancer in living tissue
- ❖ The polystyrene used as floats in Ha Long Bay is one of the biggest contributors to the degradation of the eco system
- ❖ It moves around in the bay with the ebb of the tide continuing to breakdown into thousands of smaller pieces, which in turn is consumed by fish and other marine animals

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Impact Study

- ❖ To review the impact of micro-plastics on the early life stages of fish, Swedish researchers exposed perch larvae to different concentrations of polystyrene in water tanks.
- ❖ The study found perch larvae favored particles of polystyrene over their natural food
- ❖ As a result the young perch were smaller, slower and more susceptible to predators
- ❖ In the absence of micro-plastics, about 96% of the eggs successfully hatched. This dropped to 81% for those exposed to large quantities.
- ❖ When exposed to predators, about half the young perch from clean waters survived for 24 hours. Those that had been exposed to plastic concentrations were all consumed by pike over the same period.
- ❖ "They are basically fooled into thinking it's a high-energy resource that they need to eat a lot of. I think of it as unhealthy fast food for teenagers, and they are just stuffing themselves." Dr Oona Lonnstedt, from Uppsala University



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Plastic 'the' Problem

- ❖ More than 8 million metric tons of waste into the ocean every year, which is the same amount as the total volume of plastic produced in 1961
- ❖ That equates to 2973 km², which is 21 times the size of Cat Ba Island or twice the size of Hai Phong Province
- ❖ If the problem is not addressed there could be as much as 1kg for every 3kg's of fish in the next decade
- ❖ In a study 55% of fish in Indonesia had traces of plastic in them
- ❖ The same study found 67% of fish in US had traces of plastic in them
- ❖ Plastic particles have been found in the stomachs of 63 / 250 species of seabirds
- ❖ 100,000 marine creatures a year die from plastic entanglement and these are only the ones that are found
- ❖ Approximately 1 million sea birds also die from plastic
- ❖ Estimated that 60% of the world's fish stocks are suffering from plastic ingestion
- ❖ If left unaddressed by 2025 all will have traces of plastic inside them
- ❖ More scary prediction is that by 2050 there could be more plastic than fish in the sea



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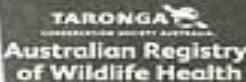
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Australian Registry of Wildlife Health



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Summary

- ❖ Need One voice
- ❖ Polystyrene and Plastic pollution is not only polluting the bay it is injected into the food chain, which in the long run will have far reaching implications to the future health of the communities living in the area
- ❖ It can be as simple or as complicated as we want to make it

Ha Long Bay can become a model for sustainable and responsible tourism in Vietnam and Asia in 3 easy steps:

1. Introduce a charge for plastic bags
2. Replace all the polystyrene in the bay and regulate
3. Regulate waste management in the Tourism / Fishing industries



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<https://www.youtube.com/watch?v=SsDiGduhI5o>



Together We Can
Make A Difference