Supplementary Material

COVID-19 impacts on beaches and coastal water pollution at selected sites in Ecuador, and management proposals post-pandemic.

Ormaza-González, Franklin I., Divar Castro-Rodas and P. J. Statham

Table 1. Questionnaire for Salinas, Manta and Galapagos. Scientific names were not requested as the public will not have this knowledge.

	Questions Salinas and Manta
Q1	Have beach and water quality visually changed? Yes or No
Q2	What has changed about the sand/water? a) It is cleaner, b) There is less plastic
	and c) The water is more transparent.
Q3	Is there less noise on the beach?
Q4	Is there more fish activity close to the beach?
Q5	Which option do you think looks most recurring? a) Fish in general, b) Sharks, c)
	Manta-rays, d) Dolphins e) Whales, f) Others
Q6	Supposing a lot of people come suddenly, what do you think the impact would
	be?
Q7	Do you agree that tourism must be reactivated in an orderly manner? Yes or No
Q8	From 1 to 5. How do you rate the beaches of Manta before the quarantine?
	Being: 1) worst 2) regular 3) acceptable 4) good 5) excellent
Q9	From 1 to 5. How do you rate the beaches of Manta after quarantine?
	Being: 1) worst 2) regular 3) acceptable 4) good 5) excellent
Q10	Do you know if Manta has a wastewater treatment plant?
Q11	To which area of activity (work) do you feel identified?
	Questions Galapagos
Q1	Have you observed more fauna such as sea lions on the beaches or the pier?
	Yes or No
Q2	If the answer is yes above on a scale of 1 to 5, how much more?
Q3	Have you seen less plastic or trash on the beaches? Yes or No
Q4	If the answer is yes above on a scale of 1 to 5, how much more?
Q5	Have you noticed improvement in water clarity? Yes or No
Q6	Have you observed increased activity / presence of Sea Turtles? Yes or No
Q7	If the answer is yes above on a scale of 1 to 5, how much more?
Q8	Have you seen more shark activity near the beach?
Q9	Does the presence of fewer boats, noise and traffic seem to have contributed to
	the return of wildlife to certain places? Yes or No
Q10	Do you think that taking information and data such as water quality could
	improve future management of beaches and visits to them?

Photo 1. Upper panel. Algae growth on a rock. Left. Just after the first pandemic restrictions were lifted (June 2020). Right. After few months restrictions to be on beaches were eased (Jan 2021). Lower panel. Station D beach. Left, just after second lockdowns restrictions were partially lifted (Sep/2020) Right. Few months after restrictions, early 2021. This beach is cleaned every week by Ormaza-González and Vera-Mosquera (2021) since June 2019.



Photo 2. Type of plastics found; microplastics (under 5 mm diameter). Station D. Ormaza-González and Vera Mosquera (2021).



Photo 3. Type of plastic found in beaches in Salinas. Station D. Station D. Ormaza-González and Vera Mosquera (2021).

