Sargassum seaweed on Caribbean islands: an international public health concern

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Sargassum seaweed on Caribbean islands: an international public health concern

An unexplained invasion of *Sargassum* seaweed has been taking place on the coasts of Caribbean countries in recent years. Areas affected by the seaweed invasion include Barbados, Guadeloupe, Martinique, Puerto Rico, Saint Lucia, and Saint Martin.[1,2] The presence of this brown algae represents not only an environmental and economic disaster but a real threat to human health. After 48 h on the seashore, large amounts of toxic gas are produced through matter decomposition, including hydrogen sulphide and ammonia.[3] The effects on humans of exposure to high concentrations of hydrogen sulphide have been described[4–6] and are of mounting severity with increasing concentration, leading to potentially fatal hypoxic pulmonary, neurological, and cardiovascular lesions. Although less documented, subchronic and chronic exposures can cause conjunctival and upper airway irritation, headaches, vestibular syndrome, memory loss, and modification of learning abilities. In the absence of any available specific treatment, management of hydrogen sulphide intoxication relies on supportive care, and prevention relies on individual protection.

Between January and August, 2018, doctors in Guadeloupe reported more than 3341 cases, and doctors in Martinique reported more than 8061 cases of acute exposure,[7] among which three patients were admitted to intensive care. The number of consultations related to the effects of chronic exposure is also increasing in the local population. To mitigate this emerging airborne poisoning outbreak, the French Government has already promised €10 million to supply equipment that can be used to remove the seaweed within 48 h, to monitor hydrogen sulphide concentrations on the affected shores, to train doctors, and to assign experts in toxicology in affected areas. Despite this commendable first effort by the French Government, a mitigation plan to address this enigmatic *Sargassum* invasion should urgently be discussed at an international level to boost marine research, pool resources, and consolidate local political priorities.

Credit: Dabor Resiere

Figure: ***Sargassum*** **on a beach in Le Diamant, Martinique**

We declare no competing interests. Written on behalf of the Research Group on *Sargassum* in Martinique.

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2 Agence nationale de sécurité sanitaire alimentation, environnement, travail (ANSES). Guidelines Mars 2017: expositions aux émanations d'algues sargasses en décomposition aux Antilles et en Guyane. 2017. https://www.anses.fr/fr/system/files/AIR2015SA0225Ra.pdf (accessed Aug 3, 2018).

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