RISK OF BIOINVASION CAUSED BY BALLAST WATER FOR THE PORT OF LAS PALMAS

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Abstract:

Shipping activities play a key role in the introduction of non-indigenous species (NIS) into coastal ecosystems, and ballast water acts as a central vector for transporting NIS between ports around the world. According to the Ballast Water Management Convention (IMO, 2004), a risk assessment must be carried out to avoid the release of new viable harmful species. This work analyses the risk assessed with a model (David, M., & Gollasch, S., 2018) that allows an evaluation according to the eight principles prescribed in the G7 guidelines of the International Maritime Organization (IMO, 2007). An application of this model was carried out using a three-year data of ships calling at the port of Las Palmas (Canary Islands, Spain). Besides, as part of the @Blueport project, a monitoring of NIS was done in 2021 similarly to a previous sampling from 2014, to pinpoint the introduction of new NIS in the port. The monitoring and risk results were compared to other regional studies on origin of NIS in the archipelago, and to other possible vectors (e.g. natural dispersion and biofouling) facilitating the transport of NIS. The uncertainty of the information on presence of the invasive species was considered as an indicator of increased risk as the model could overestimate the potential introduction of NIS. Thus, the precautionary principle of the IMO could lead to managing and treating large volumes of ballast water categorized as unacceptable risk.

Key words: (3 to 6 key words):

Canary Islands, Ballast Water, Risk Assessment, Non-Indigenous Species.

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