



Memorial

University of Newfoundland

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TO Editor – *National Geographic Magazine*

FR Bill Montevecchi

RE Lost at Sea – Gillnets, Light Pollution and Millions More Missing Seabirds



The “Lost at Sea” article by Jonathan Franzen with photographs by Thomas P. Peschak in the July 2018 issue provided strong testament of the plight of the world’s seabirds. While it is impossible for such an effort to cover all places and species, I am compelled to bring to your attention some highly relevant information from the Northwest Atlantic that on the global map of Seabirds in Crisis was covered by a Tristan Albatross.

In concurrence with the negative effects of gillnets considered in the discussion of the plight of the murres on the Farallon Islands, diving seabirds in the Northwest Atlantic have also benefitted from reduced gillnet fishing. Following the closure of the northern cod and Atlantic salmon fisheries in the early 1990s, tens of thousands of gillnets were removed from the ocean and have remained out of the water for the past 25 years. We used these circumstances in an ocean basin experiment to test the effects of gillnet removals on seabird populations. As predicted the numbers of diving seabirds vulnerable to entanglement and drowning in gillnets (murres, puffins, razorbills, gannets) all increased (Regular et al. 2013 attached). Today, as the fishery is reopening we are working with fishers to modify gillnets to reduce seabird bycatch without affecting target fish catch and to encourage alternative fishing methods (Montevecchi, et al 2017, Rouxel and Montevecchi 2018 attached).

I also want to emphasize the massive negative effects of artificial night lighting on seabirds, especially in the offshore ocean and coastal areas. Consistent with the *National Geographic* article that opened on the Ashy Storm-Petrel and the threats facing tube-nosed seabirds worldwide, note the predicament of the Vulnerable Leach’s Storm-Petrel. The world’s largest colonies of Leach’s Storm-Petrel and the bulk of the species’ population nest

on islands off eastern Newfoundland. This robin-sized nocturnal species is highly attracted by artificial night lighting and is the most vulnerable species to flaring and lights at offshore oil platforms on the edge of the Grand Banks. These platforms have brilliantly illuminated the formerly opaque ocean environment of the Grand Banks. During the past two decades, 3,300,000 of these birds or 15% of the world population have gone missing. We are investigating all potential causes of the species' decline (predation, pollution, climate change/food webs, and offshore flaring and lighting that induces incineration, platform collisions and oiling; Montevecch et al. 2018 attached).

I realize that many critical issues are raised here, and it is unfortunate that *National Geographic* does not publish Letters to the Editor. It would however be extremely valuable to publish brief follow-ups on compelling issues that are raised by the magazine's articles. Perhaps an online option could be considered as done by the journal *Science*.

Thank you for your attention these important issues.

Sincerely,



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