ASSESSING DISPERSAL AND META-POPULATIONS IN LEACH'S STORM-PETRELS (OCEANODROMA LEUCORHOA) USING FORENSIC TECHNIQUES

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Procellariformes are long-lived and nest in a few densely aggregated places making them particularly vulnerable to the deleterious effects of global change, yet despite being one of the most threatened avian taxa in the world, we still know little about their dispersal behaviour. A large colony of 45,000 pairs of Leach's Storm-petrel (Oceanodroma leucorhoa) breeds on St Kilda, Scotland, representing 94% of the EU population, yet this population is under threat from large numbers of Great Skuas (Stercorarius skua) breeding on the same island. However, very large colonies of Leach's storm-petrel (>6 million birds) exist in Newfoundland and if birds are able to move between these locations, immigration to St Kilda may offset the effects of skua predation. Therefore dispersal may be critical for the long-term persistence of colonies of this species. Here we use a combination of molecular markers and stable isotopes to determine the extent of movement between Leach's Storm-petrel colonies in the North Atlantic. These data have important implications for understanding dispersal and meta-population dynamics of this species, as well as for implementing appropriate conservation strategies.

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