

NOTE

Albino xanthochromic Homelyn Ray *Raja montagui* Fowler, 1910 (Elasmobranchii: Batoidea) from the Irish Sea

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Abstract

The authors describe the first case of simultaneous oculocutaneous albinism and xanthochromism in Homelyn Ray (*Raja montagui* Fowler, 1910), and summarise previous reports of similar colour abnormalities in other species of Batoidea.

Albinism is a genetically inherited disorder controlled by several different genes in which the pigment melanin is either absent or non-functional, resulting in a lack of normal pigmentation in both the skin and iris. Although at least 633 species of extant Batoidea (skates and rays) are currently recognised worldwide, 'albinism' and 'partial albinism' has only been reported in 13 (c.2%) species to date. However, in the absence of specific details on eye colour, some of these specimens could have been exhibiting either true oculocutaneous albinism, leucism or other forms of hypomelanism (Quigley et al., 2018).

Xanthochromism (also known as xanthochromism or xanthism) is an external colour condition characterised by overt yellow-orange-red

pigmentation, unusually due to relatively high levels of xanthophores in the skin. While many species of fish are naturally xanthochromic (Quigley et al., 2017), abnormal xanthochromism has only been reported in 5 (0.8%) species of Batoidea to date (Quigley and MacGabhann, 2015). Although the aetiology of abnormal xanthochromism in fish is not always clear, in the vast majority of cases the condition is generally thought to be caused by a non-pathological genetic mutation (Quigley et al., 2017).

The Homelyn Ray *Raja montagui* Fowler, 1910 is distributed along the NE Atlantic coast from the northern North Sea southwards to NW Africa (Morocco) and the western parts of the Mediterranean Sea, primarily at depths <200 m (Ellis, 2015), but possibly down to 800 m

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