Identifying Canadian freshwater fish through DNA barcodes

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New research by Canadian scientists, led by Nicolas Hubert at the Université Laval in Québec and published in this week's PLoS ONE brings some good news for those interested in the conservation of a number of highly-endangered species of Canadian fish.

The use of DNA for automated species-level identification of earth biodiversity has recently moved from being an unreachable dream to a potential reality in the very near future. The potential of mitochondrial DNA in achieving this target has been successfully assessed for all of the Canadian freshwater fish communities and the approach bears some very exciting promise.

The Consortium for the Barcode of Life (CBOL) and the Canadian Barcoding of Life network recently assessed the potential of the Barcode region in diagnosing the entire freshwater fish communities of Canada and Alaska in the context of the fish worldwide campaign.

Hubert and colleagues sampled and barcoded 1360 individuals from 190 species belonging to 27 families and 20 orders and showed that Barcodes are effective for species-level identifications in 93% of the case.

In front of the economic importance and identification challenges associated with fishes, this represents a considerable advance for conservation practices and open new perspectives in ecology.

Citation: Hubert N, Hanner R, Holm E, Mandrak NE, Taylor E, et al.

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