Preliminary genetic identification of dolphin recovered dead on Ripiro Beach, 
DOC incident ID: H243/13

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A dolphin found dead on Ripiro Beach south of Glinks Gully on 13 September 2013 (DOC 
incident ID: H243/13) was visually identified as either a Hector’s or Maui’s dolphin female by 
field staff of the Department of Conservation. A small skin sample was collected from the 
dolphin and forwarded to the University of Auckland for genetic identification of the subspecies. 
Previous research has shown that the two subspecies are genetically distinct, differing at both 
maternally-inherited mitochondrial (mt) DNA haplotypes and at biparentally-inherited 
microsatellite genotypes, i.e., DNA profiles (Hamner et al. 2012, Hamner et al. 2013).

Preliminary genetic results are available at this time for sex and microsatellite genotypes, 
although not for the mtDNA haplotype. The genetic sex of the dolphin was confirmed to be 
female. The standard subspecies assignment procedure used for this species, based on a 
reference set of 10 microsatellites (Hamner et al. 2012), indicated that it is a Maui’s dolphin with 
high confidence (membership coefficient = 0.979, based on assignment in the program Structure, 
as in Hamner et al. 2013). Its genotype does not match to any previously sampled dolphin in our 
DNA register. Further analyses are underway to sequence the mtDNA haplotype and determine 
if this dolphin has the single mtDNA haplotype, referred to as ‘G’, shared by all previous 
samples of confirmed Maui’s dolphins.

Literature Cited

range movement by Hector’s dolphins provides potential genetic enhancement for 
critically endangered Maui’s dolphin. Marine Mammal Science: DOI: 
10.1111/mms.12026.

differentiation and limited gene flow among fragmented populations of New Zealand 