



# Updated cost of pilot gene-tagging: Addendum to CCSBT-ESC/1509/18 Report on gene-tagging design study

We have updated cost estimates for the pilot gene-tagging project, based on a more recent quote for geno-typing samples. This substantially reduces costs for this component of the budget by approximately AUD \$100,000.

## Updated cost estimates

In section 8.2 of the CCSBT-ESC/1509/18, we estimated costs for a pilot gene-tagging project based on the recommendation to tag 2 year olds and recapture 3 year olds in the Great Australian Bight. The estimated costs for the genetics processing used in this calculation were \$25/sample based on the new methods explored in Bravington et al (2015 (CCSBT-ESC/1509/19)).

We have received a new quote for a targeted SNP assay, an alternative form of DNA profiling, which uses a subset of the same SNPs planned for the close-kin genotyping and can be used to match individuals with themselves. Using a sub-set of SNPs in a targeted SNP assay reduces operational processing cost. The new quote is \$18 per sample.

The cost estimates for the pilot gene-tagging study presented in Table 2 of CCSBT-ESC/1509/18 are updated in Table 1 below which includes a column for previous cost estimates for comparison with the and update cost estimates based on the \$18/sample unit cost.

**Table 1. The updated and previous cost estimates, and tagging and recapture tissue samples sizes for the gene-tagging pilot study, for a target CV of the estimates of abundance with and without inclusion of an over dispersion factor of 1.5, and for two assumptions for the numbers of fish in the age 2 cohort: 2 million fish (approximate recent average), and 3 million fish (recent maximum). From Table 2 of CCSBT-ESC/1509/18.**

TARGET CV OF ABUNDANCE ESTIMATES	ASSUMED COHORT SIZE	TAGGING SAMPLE SIZE	RECAPTURE SAMPLE SIZE	PREVIOUS COST ESTIMATE	UPDATED COST ESTIMATE
0.25 + no overdispersion	<b>2 million</b>	5000	6500	AUD \$705,000	AUD \$625,000
0.25 + no overdispersion	<b>3 million</b>	5000	9600	AUD \$782,000	AUD \$680,000
0.25 + 1.5 overdispersion	<b>2 million</b>	5000	9600	AUD \$782,000	AUD \$680,000
0.25 + 1.5 overdispersion	<b>3 million</b>	5000	14400	AUD \$915,000	AUD \$780,000