**Summary of results**

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This document briefly describes the methods and results of analyses to look at how two response variables – number of fishing licenses and number of fish tags returned – changed pre- and post- COVID. For any queries, please contact either Jarod ([jarod.lyon@delwp.vic.gov.au](mailto:jarod.lyon@delwp.vic.gov.au)) or Rob ([rob.hale@delwp.vic.gov.au](mailto:rob.hale@delwp.vic.gov.au)).

**Number of fish tags returned**

*Methods and data summary*

Fish catch data was taken from the time-series for two months – April (fishing was banned April 1st to May 10th) and August (people from Melbourne were in lockdown 1st August to 29th September, but September data is not yet available). Data was available for the past three years.

A generalised linear model was run using a Poisson distribution with Year as a fixed effect.

april\_aug\_mod<-glm(fish\_count~Year, family='poisson', april\_aug)

Estimate Std. Error z value Pr(>|z|)

(Intercept) 2.9957 0.1581 18.947 < 2e-16 \*\*\*

Year2019 -0.3930 0.2491 -1.578 0.115

Year2020 -1.7430 0.4097 -4.254 2.1e-05 \*\*\*

**Licenses**

*Methods and data summary*

Licence data was available for the past three years and for April, August and September (lockdown periods). The response variable is the number of 28 day licenses purchased.

A glm was run with Year as a fixed factor using a poisson distribution.

before\_after\_28d<-glm(QTY\_28\_DAY~Year, licenses\_covid, family="poisson")

Coefficients:

Estimate Std. Error z value Pr(>|z|)

(Intercept) 6.31777 0.02452 257.638 <2e-16 \*\*\*

Year2019 0.04354 0.03431 1.269 0.204

Year2020 -2.17994 0.07694 -28.331 <2e-16 \*\*\*