

Diary Phone Survey Summary

As part of FRDC Project 2019/075, researchers from the Institute for Marine and Antarctic Studies (IMAS) conducted a diary phone survey of recreational rock lobster catches in the 2020/21 season. The survey will provide information on the Victorian recreational rock lobster catch, effort and catch rates that is not routinely collected and can validate data collected in the electronic catch reporting app VicRLTag.

In the phone diary survey, respondents were asked to keep a diary record of their fishing activity between 16th November 2020 and 30th March 2021. Survey participants were randomly selected using geographically stratified representation to cover the spread of fishers in each Australian Bureau of Statistics (ABS) Statistical Area Level 4 (SA4) classifications across Victoria. The sample was further split, due to the high number of registered fishers who do not report catch in a season, to increase the proportion of fishers who reported catch in the previous season. Of the 381 respondents who completed the screening survey, 347 indicated they were likely to re-register for rock lobster fishing in the 2020/21 season and, consequently, were eligible to participate in the diary survey. The acceptance rate of those eligible to participate in the diary survey was 298 (85.9%). The diary completion rate was 270, which was 90.6% of participants that accepted the diary survey.

Catch and Effort

During the study period diarists reported catching a total of 395 Southern Rock Lobster and one Eastern Rock Lobster based on 469 fishing events (460 fisher-days), representing 852.9 hours of targeted fishing effort. In the Eastern Zone, diarists reported 269 fishing events, representing 517 hours of effort and a catch of 175 lobster during the survey period (Figure 12). In the Western Zone, diarists reported less effort, 200 fishing events and total fishing time of 335.8 hours but had a higher catch of 221 lobster.

Fishing effort (hours) was primarily concentrated in the Warrnambool (36%), Queenscliff (29.4%) and San Remo (29.5%) regions (Figure 1). Warrnambool (51.3%), Queenscliff (24.4%) and San Remo (19.4%) were also the regions with the highest proportions of catch taken by diarists. Effort was also primarily concentrated in the Warrnambool, Queenscliff and San Remo regions.

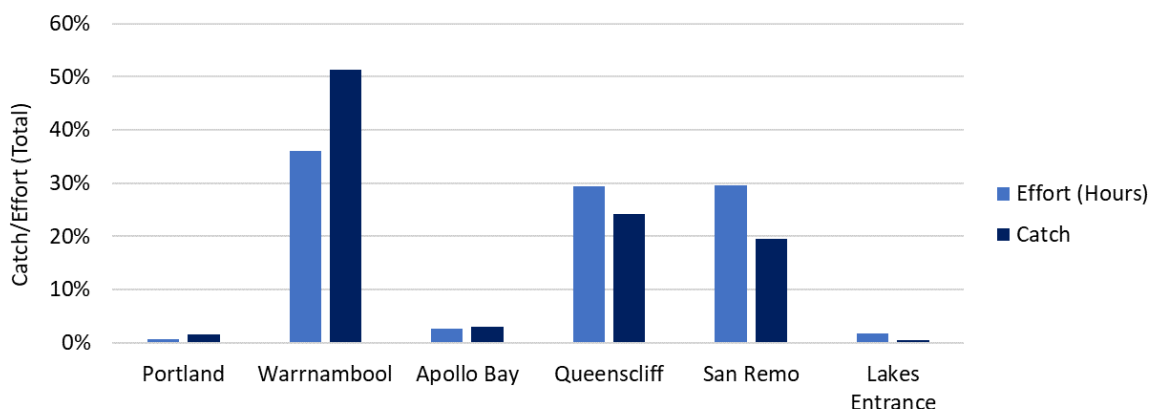


Figure 1 The proportion of catch and effort (hours) reported by diarists over the survey by region.

Catch Per Fishing Trip

State-wide 51% of fishing trips reported by diarists resulted in zero catch (Figure 2). In the Eastern Zone 65% of fishing trips resulted in zero catch, whereas 35% of fishing trips in the Western Zone resulted in zero catch. Portland was the region with the highest percentage of trips resulting in the daily bag limit of 2 lobster being reached (75%), however, this was based on just 4 events that all used hookah as the fishing method. Overall, the proportion of trips in which diarists reached the bag limit (2 lobster) was substantially higher in the Western Zone (55%) compared to the Eastern Zone (17%).

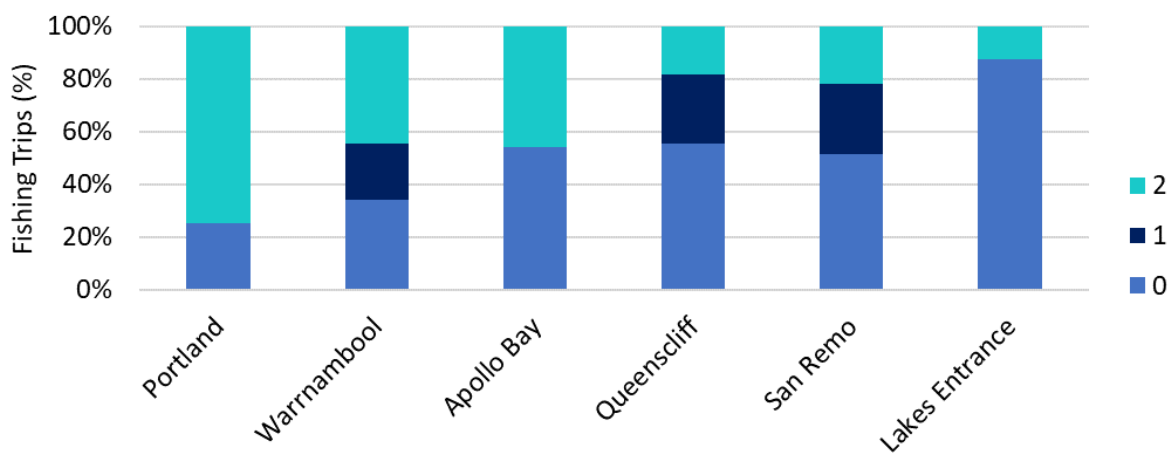


Figure 2 The percentage of fishing trips in each region in which diarists caught zero, 1 or 2 lobsters.

Catch Per Unit Effort (CPUE)

State-wide average CPUE, calculated from the reported catch and effort in the diary survey and including zero-catch fishing trips, was 0.71 lobster per hour, with the CPUE for the Western Zone (0.87) more than double that for the Eastern Zone (0.37). Regionally, Warrnambool had the highest CPUE (1.02), while Lakes Entrance had the lowest (0.08). The highest CPUE in the Eastern Zone was 0.52 in the Queenscliff region (Figure 3). The inclusion of zero catch fishing trips differs to inferences that can be made from the VicRLTag app reports that only include successful catch reports and thus results in inflated estimates of CPUE.

Of the various fishing methods, hoop nets had the highest CPUE (1.24) across Victoria (Figure 3). The high catch rate for hoop net was primarily from the Western Zone which had a higher CPUE compared to the Eastern Zone. Snorkel had the lowest CPUE (0.49) across Victoria and had the lowest CPUE by fishing method in both the Western Zone (0.69) and Eastern Zone (0.17).

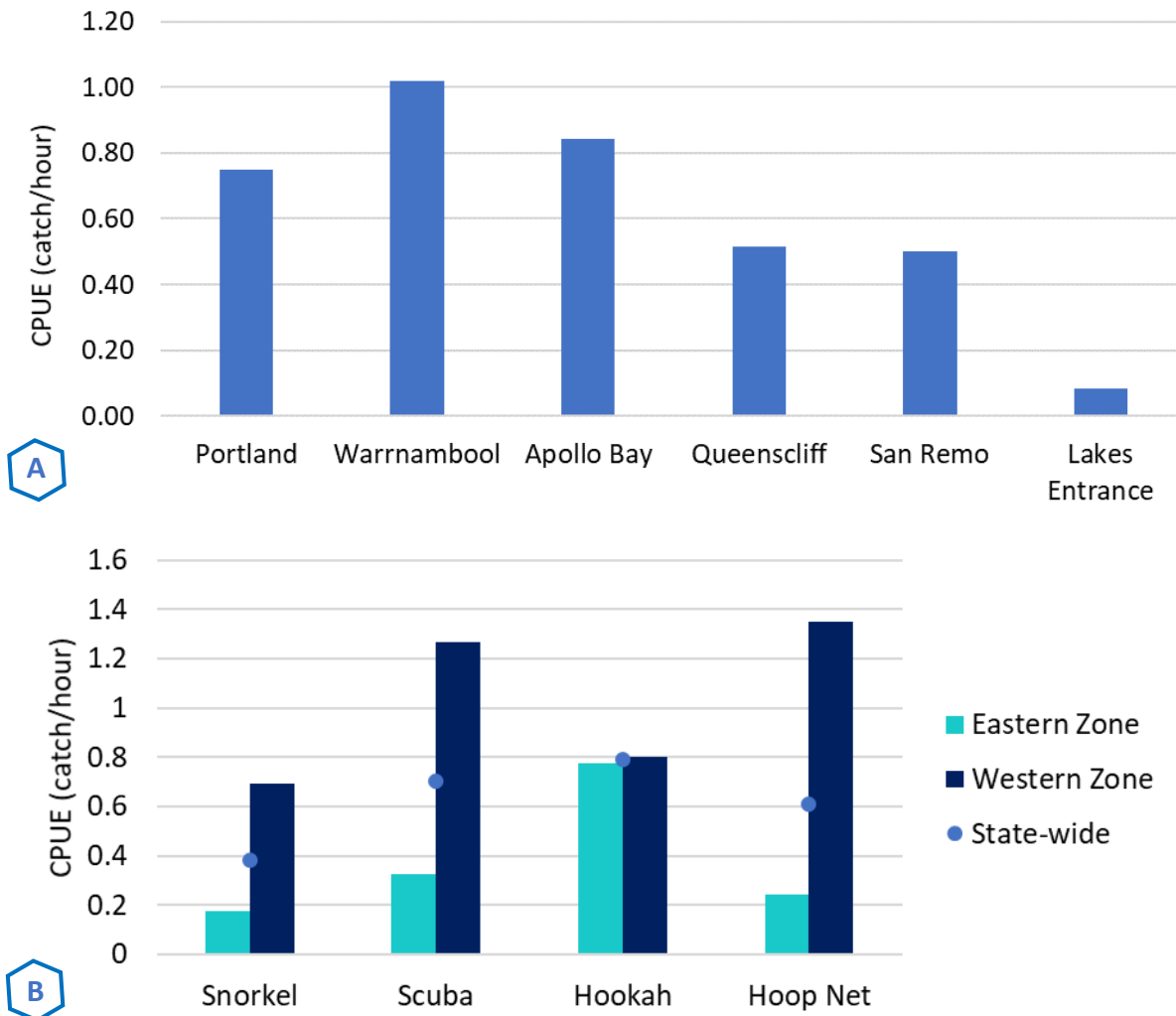


Figure 3 The average catch per unit effort (catch/hour) in each region (A), the average catch per unit effort (catch/hour) by fishing method for the Eastern and Western management zone (B).

More Information

The full report will be available on the FRDC website at the URL:

<https://www.frdc.com.au/project/2019-075>.