

A proposal for penguin island closures in 2021

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This proposal for penguin island closures in 2021 matches that of the proposal of FISHERIES/2020/OCT/SWG-PEL/102, but considering the 2021 year only.

This proposal for the closure or opening of a 20km radius around Robben, Dassen, St Croix and Bird islands to purse-seine fishing during 2021 is extracted from the multi-year proposal by de Moor (2020a). That proposal was primarily based on the summary of both sets of GLMM analyses available to the SWG-PEL, which were tabled and noted in de Moor (2020b).

Closure of Robben and St Croix Islands during 2021

Both sets of analyses currently show that the closure of Robben Island and St. Croix Island to purse-seine fishing benefits penguins. The islands should therefore be closed to purse seine fishing as the start of an “extended period” of closure, noting that it may be prudent to bring the review of this “extended period” forward for St Croix if further understanding of the link between the foraging data and penguin reproductive success suggests a reconsideration is required.

Closure of Dassen Island during 2021

Both sets of analyses currently show that the closure of Dassen Island to fishing will benefit penguin chick survival. However, the overall benefit to penguins is not clear given some results from Butterworth and Ross-Gillespie which, if taken at face value, suggest the closure of Dassen Island to fishing may be detrimental to chick growth, path length and trip duration. The current 3-year closed followed by 3-year open experiment should be continued for the short-term future to allow time for these ‘counter-intuitive’ results of Butterworth and Ross-Gillespie to be further understood. The continuation of the experiment would mean Dassen Island should be closed during 2021.

Opening of Bird Island during 2021

Sherley’s results suggests this experiment could not inform on the impact of fishing to penguins on Bird Island. Butterworth and Ross-Gillespie’s results suggest extending the experiment at this Island may produce more informative results, although there is already a weak indication that closure may decrease trip duration of penguins from Bird Island. However, in most years very little sardine catch has been taken within 20km of Bird Island and no anchovy has been caught around the island. The lack of contrast (high v low fishing in open v closed years) likely contributes to the ability for this experiment to inform on the impact of near-island fishing to penguins on Bird Island and I therefore expect little benefit in continuing the experiment around this island. Rather, I propose that this island is opened to purse seine fishing as the start of an “extended period” of opening. One expects future catches within 20km of Bird Island to continue to be of the same order as the recent past. This “extended period” of opening could be reviewed if this is not realised, in a similar manner to how Exceptional Circumstances are declared for OMPs.

References

- de Moor CL. 2020a. A proposal for future penguin island closures. DEFF: Branch Fisheries Document FISHERIES/2020/OCT/SWG-PEL/102.
- de Moor CL. 2020b. A simple summary of the penguin island closure analyses. DEFF: Branch Fisheries Document FISHERIES/2020/SEP/SWG-PEL/95rev.

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