

 <p>Agreement on the Conservation of Albatrosses and Petrels</p>	<p><b>Eighth Meeting of the Seabird Bycatch Working Group</b></p> <p><i>Wellington, New Zealand, 4 – 6 September 2017</i></p> <p><b>Incidental catch, seabird mortality and discard in trawling fishing in the extreme south of Chile (39°-57°S): Towards an ecosystem approach in fisheries.</b></p> <p><b>Luis Adasme<sup>1</sup>, Cristian Canales<sup>2</sup>, Nicolas Adasme<sup>2</sup></b></p> <p><i><sup>1</sup> Instituto de Fomento Pesquero, Valparaíso, Chile.</i> <i><sup>2</sup> Pontificia Universidad Católica de Valparaíso, Chile.</i></p>
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#### ABSTRACT

In recent decades, the incidental mortality of seabirds and discard of fishery resources have been a permanent focus in trawling operations in most countries that exploit marine resources. Although many studies have dealt with these aspects using different scopes and methodologies, Chile has few antecedents based on data analysis of fishing operations. In the present study, we model the information of fishing casts carried out between 2013-2016 by trawlers in the area 39°-57°S off the coast of Chile, and in particular the incidental mortality of seabirds and the levels of discarded catch reported by scientific observers.

The results show remarkable spatiotemporal and operational patterns in the incidence of dead birds and discards. The use of net monitoring systems, the extension of trawling time, as well as the period and area of albatross breeding close to the fishing zones, could explain the incidental death of these seabirds. On the other hand, the spatial-temporal factors related to the particular operations of the fleet predominated in the discard, which was greater during the second trimester of the year and concentrated towards the north of the study area.

An extension of the analysis shows the inefficiency in catch rates and higher mortality of birds with casts whose duration exceeded 4 hours, suggesting certain mitigation actions to be taken into account for the development of fishing activity in harmony with the ecosystem. The purpose of this study was to advance the understanding of the factors that determine the mortality of seabirds and discard in the zone 39°-57°S off the coast of Chile.

**Keywords:** net-monitoring system, trawling, seabird mortality, discard, fishing effort

### **RECOMMENDATIONS**

1. The purpose of this study was to advance the understanding of the factors that determine the mortality of seabirds and discard in the zone 39°-57°S off the coast of Chile. The SBWG8 is requested to provide comments that may contribute to the development of future Works to implement in these aspects.
2. It is suggested that the SBWG8 recommend to continue with this study, as well as to invite to carry out this study's type in the different countries that are part of ACAP and that have operations with trawls, the above, in order to confront and contrast results and Visions.
3. The SBWG is suggested to take account the showed results in order to discuss as a possible mitigation measure or good practice in trawl fisheries, particularly in those in areas where the mortality probability increase.