

Commitment to a stepwise implementation of voluntary restricted zones and implementation of transshipment and vessel standards for the krill fishery in the Antarctic Peninsula

The signatories to this Commitment commit to the initiatives described in points 1) to 5) below and agree to work for broader acceptance of these measures by:

- a. encouraging all ARK members to commit to the initiatives, including their formal acceptance of this Agreement either in its entirety or in part, and
- b. Advocating for these measures to ultimately be adopted as CCAMLR regulations,

1) STEPWISE IMPLEMENTATION OF VOLUNTARY RESTRICTED ZONES

With the aim of having a permanent closure of the voluntary restricted zones after a stepwise transition in 2019, starting from 1 January 2019, the signatories commit to:

- a. Implement the voluntary restricted zones (as described in Attachment 1), and
- b. Apply their best commercial effort to stay out of the voluntary restricted zones (as described in Attachment 1) all year already in 2019, to gain experience of the practicalities and potential impact on the commercial fishery of implementing the voluntary restricted zones as a full year measure.
- c. From the 2020 catch season onwards, based on review and evaluation procedures outlined below, refrain from fishing in the agreed full year zone permanently.

2) ANNUAL REVIEW OF VOLUNTARY RESTRICTED ZONES

The signatories will review implementation of voluntary restricted zones annually, with the first review to be complete by the end of 2019. The annual review shall include:

- a. Viability for fishery
Review the catch inside and immediately outside the voluntary restricted zones and share key findings with environmental NGOs and scientists who have expertise relating to the krill fishery and the CCAMLR Domain 1 planning process. This will be an independent review and participation in the review process shall be discussed with stakeholders and agreed to by the signatories to this Commitment.
- b. Evaluate to what extent the rest of the fleet have adopted the voluntary restricted zones measure.
- c. New Science
Review of new science, such as biomass survey and other relevant data and science.
- d. Feedback from expert- and scientific committees in CCAMLR *Evaluation of the formal expert/scientific process of the Western Antarctic Peninsula proposal (D1MPA). Such as the Scientific Committee in CCAMLR and its working groups.*

3) IMPLEMENTATION OF FULL YEAR VOLUNTARY RESTRICTED ZONES

Based on the review of the voluntary restricted zones (described in paragraph 2.), the size of the full year protected zone shall be agreed, with the starting size considered to be 30 to 40km from the coast(as described in Attachment 1), or attenuating incrementally from that point. The agreed full year zone shall be implemented from 1 January 2020.

4) TRANSSHIPMENT

The signatories shall commit to the standard for transshipment drafted in Attachment 2 and will develop a practice in line with an adequate code of conduct and principle of transparency.

5) VESSEL SAFETY

The signatories commit to operating its' vessels in line with the IMO Torremolinos protocol for the Safety of Fishing Vessels described in Attachment 3.

6) VALIDITY OF COMMITMENT

- a. This Commitment is valid from the date of signing until 1 January 2024. At least three months prior to the expiry date, the signatories shall evaluate the Commitment and if the implementation is considered to be successful, the signatories shall prolong the Commitment for another five years.
- b. The signatories' goal is to get an MPA in Domain 1 adopted by the CCAMLR Commission, recognizing the industry's role in contributing to the long term ambition for a large scale network of MPAs in the Antarctic Ocean. When such MPA is adopted it will replace the VBPZ described herein and the annual reviews described at 2) will discontinue accordingly. To the extent they are consistent with the MPA, all other elements of this Agreement will remain.

7) ATTACHMENTS

Attachment 1 Voluntary Restricted Zones

Attachment 2 Transshipment

Attachment 3 Torremolinos Protocol Safety of Fishing Vessels

Signatures

This Commitment is made by

For Aker BioMarine

For Pesca Chile

For Insung

**Improving conservation and management of Antarctic krill:
VOLUNTARY PRECAUTIONARY RESTRICTED ZONES IN THE WESTERN ANTARCTIC
PENINSULA (Area 48.1)**

Recognizing that

- Krill is one of the largest underexploited marine resources. Nevertheless, an ecosystem-based management is challenging.
- Global climate change creates unpredictable impacts and uncertainty on abundance and density distribution of krill and stress on krill dependent predators.
- The current development of increasing effort concentration near breeding sites of land-based predators raise new concerns about an industry – ecosystem conflict.
- Despite there being no scientific evidence suggesting that the krill fishery is having a negative impact on predator species, the industry acknowledges that buffer zones might be a valid precautionary action to avoid interference with breeding penguin colonies during breeding season.
- We recognize that the scientific community supports marine protection covering at least 30% of the ocean by 2030 in order to mitigate against climate change and allow fish stocks to recover.
- The introduction of an MPA in the Peninsula area is an overarching management goal to support precautionary management of the Antarctic marine ecosystem including harvesting of krill.

THE VOLUNTARY MEASURE

- A spatial restriction under an experimental framework of the fisheries on the krill hotspots to avoid interference with the breeding colonies in the proximity of the hotspots (Figure 1).

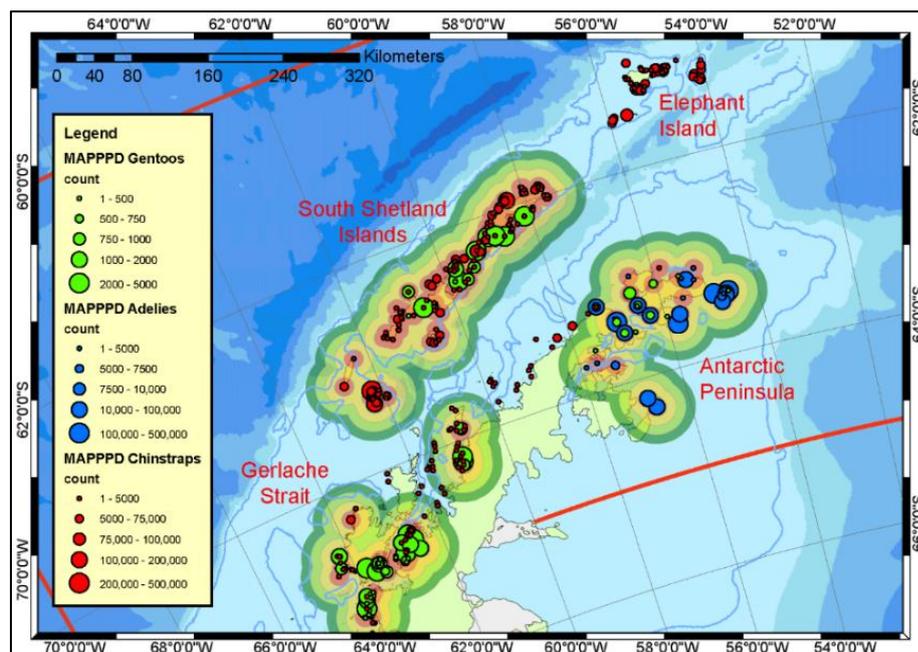


Figure 1: The South Shetland Islands and Antarctic Peninsula.
Proposed voluntary coastal buffers focussed around the major breeding aggregations of chinstrap (red), Adélie (blue) and Gentoo (green) penguins; breeding site information for penguins is from MAPPD. Proposed buffers are shown at 10 km (pink), 20 km (yellow), 30 km (lime green) and 40 km (bottle green).

Temporal and spatial closures

- Antarctic Peninsula – closed to krill fishing within 40 km of land between 1 October and 1 February. This area is predominantly occupied by Adélie penguins, but with some chinstrap and gentoo penguin colonies.
- Gerlache Strait – closed to krill fishing within 30 km of land between 15 October and 15 February. This area is predominantly occupied by gentoo penguins, but with some Adélie and chinstrap penguin colonies.
- South Shetland Islands – closed to krill fishing within 40 km of land between 1 November and 1 March. This area is predominantly occupied by chinstrap penguins, but with some Adélie and gentoo penguin colonies.
- Elephant Island – open to krill fishing all year.
- Bransfield Strait – open to krill fishing all year.

Duration

- Buffer zones will remain in place for 10 years from 1 January 2019 or as otherwise specified by a CCAMLR Domain 1 MPA. The buffer zones are not to be considered as a substitute, but a step supporting the establishment of a MPA in Domain 1.
- The experiment is reviewed and evaluated after 5 years, and then again after 10 years. If there has been insufficient engagement in the project, thus undermining the scientific value, the measure could be discontinued as a voluntary effort.

Scientific support

- The Measure, operated in accordance with a scientific framework for experimental fishing, will support the need for precaution at the same time as collecting valuable scientific information in support of spatial management as well as preparing the ground for other measures under discussion (e.g. Feedback management).
- There is a common understanding between the industry and science that it would be mutual beneficial to use the fleet to collect data (such as krill density data from acoustics and oceanographic observations) and support marine operations (such as launch and recovery of moorings) in support of research and management.

Interaction with other measures and proposed Domain 1 MPA

- The introduction of voluntary precautionary restricted zones under an experimental scientific framework is an action that will develop best practice with the ultimate goal of unanimous acceptance by the krill industry.
- The obvious gap in information outside the limited time-space windows covered by research vessels can in part be filled by this collaborative effort and become an important groundwork in a future Domain 1 MPA structure.
- The voluntary measure shall support CCAMLR activities and process of establishing of establishing an MPA in domain 1
- An overview of this voluntary conservation measure will be presented to the D1MPA Expert Group