Marine Stewardship Council (MSC): Low Trophic Level Fisheries Workshop

1st & 2nd October 2013 Washington LC

Managing Low Fophic Level Fisheries: The South African Experience





Escapement: CCAMLR

- CCAMLR considered as the first "ecosystem" Convention
- Article II requires that the needs of dependent and related species be taken into account in setting harvest controls for a target species

Escapement: CCAMLR

 CCAMLR decision rule for setting krill catch limit: Prob(B^{SP} < 0.2K at some stage over 20 yrs)=0.10 Median krill escapement (B^{SP}) over 20 yrs = 0.75K Escapement: CCAMLR • CCAMLR decision rule for setting krill catch limit: Prob(B^{SP} < 0.2K at some stage over 20 yrs)=0.10 Median krill escapement (B^{SP}) over 20 yrs = 0.75K

Originally stated as to be revised given improved predator-prey models

In practice unchanged after 15 years Midpoint between typical single species target taking no account of predators (0.5K) and complete protection of predators (K)

Escapement

Current MP (OMP-08) median escapement:

1 1 Sardine Anchovy 0.9 0.9 0.8 0.8 0.7 0.7 °¥0.6 ℃16 80.5 **¥**0.6 **₩**0.5 0.4 0.4 0.3 0.3 0.2 0.2 0.1 0.1 0 0 0 0 A_{M2} S₀ S_{M1} S_{M2} S_{M3} S_{M4} S_{M5} S_{bias1} S_{bias2} S_{rec} S_{cor} A_{M1} A_{M3} A_{kegg1} A_{kegg2} A_{BH} A_0 A_R



Escapement

Current MP (OMP-08) median escapement:

Plots: Biomass/K



 Emergent property: we're managing at a level higher than conventional reference points of ~ [0.3;0.5] Escapement: CCAMLR
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Comparable median escapements for SA sardine and anchovy

Thank You!