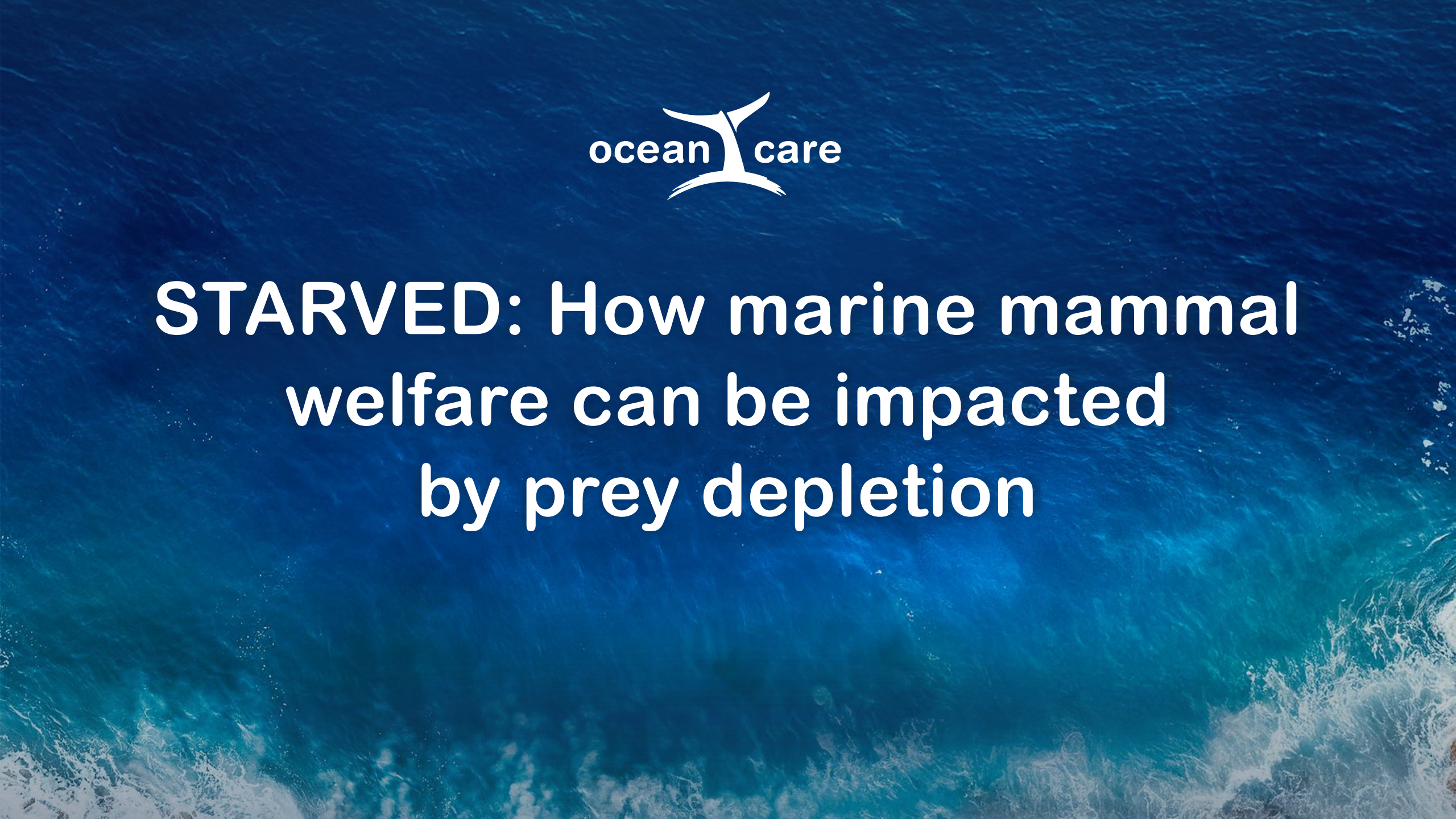


STARVED: How marine mammal welfare can be impacted by prey depletion



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Reduced prey availability/quality

- Prolonged energy shortages
- Depletion of blubber & muscle reserves
- Starvation
- Weakened immunity
- Increased disease susceptibility
- Metabolic / physiological disturbances (potential organ dysfunction, reproduction failure, death)

Behavioural changes

- Longer dives
- Travel further
- Change foraging strategies
- Move into suboptimal habitats
- Increased predation risk

PREY DEPLETION = CHRONIC STRESSOR

- ACCUMULATION OVER TIME
- INTERACTION WITH OTHER PRESSURES

Diagnosis



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Conclusion

Prey depletion can compromise welfare through nutritional stress, deteriorating health and body condition, inducing behavioural changes, reducing reproduction, and ultimately increasing mortality risk.

Need for early indicators in free-ranging populations