

# NZ sea lion autopsy findings 2001/2002

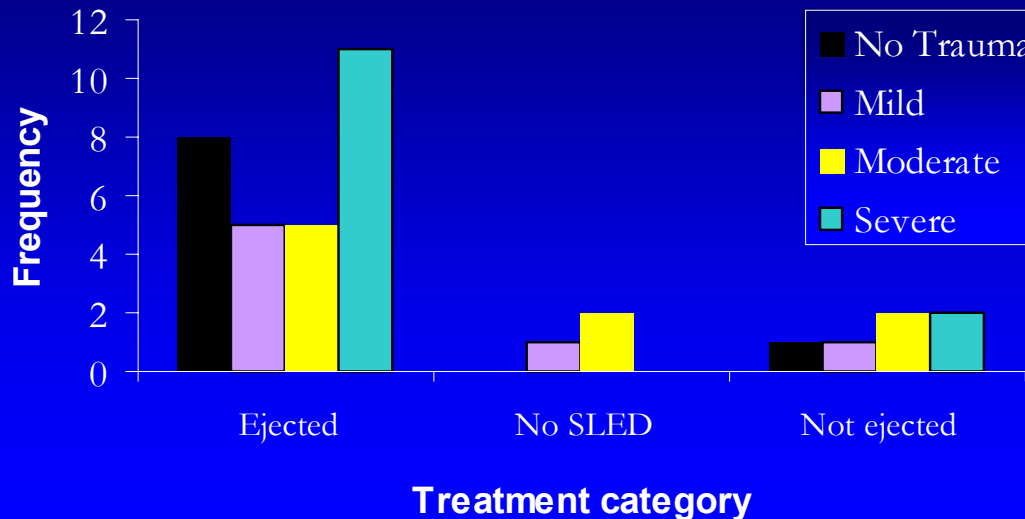


# Autopsy findings and SLED evaluations

- Prior to 2001 season decision rules devised to assess likelihood of survival of sea lions ejected by SLEDS
- Based on video evidence collected
- Decision pertained to short term survival only
- Felt that autopsy of frozen carcasses would shed no further light on survival prognosis

# 2001 Autopsy findings and sled use

Physical trauma in autopsied sea lions 2001



- 90% of animals had heart damage consistent with severe acute stress/asphyxiation
- 76% of 38 animals had blunt trauma
- 58% had trauma injuries which would have compromised survival
- Results suggest that properties of the SLED increased chances of life threatening trauma.
- At least 1 of the 3 animals deemed to have survived based on video footage had severe trauma injuries which would have compromised survival
- Concern that animals caught in net with no SLED sufficiently traumatised by capture that they would not survive ejection

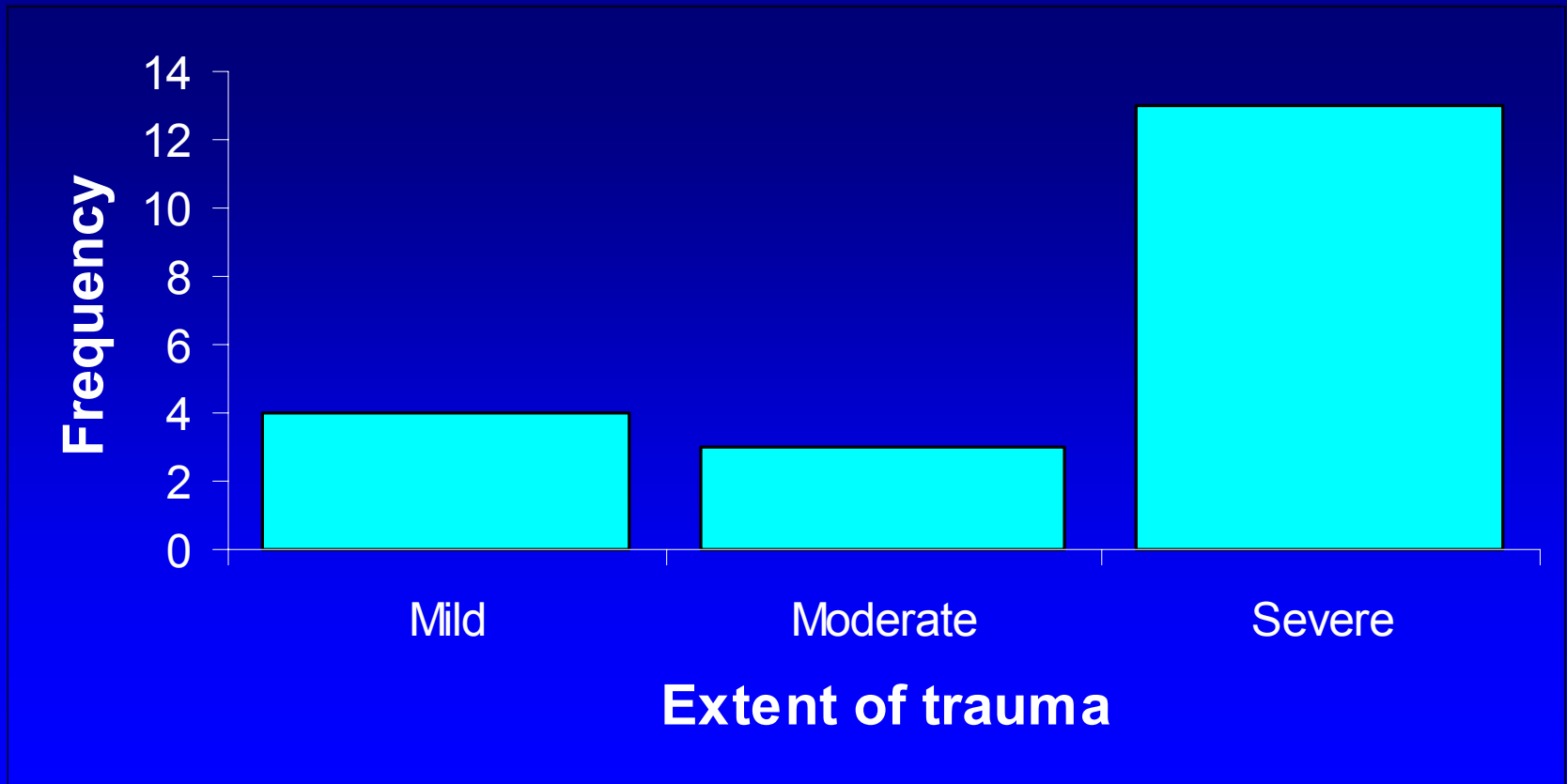
# Decision rules for 2002 season

- Necessary to refine in view of autopsy findings
- Combined positive outcome of video and autopsy results
- Autopsy findings classified on following criteria
  - Presence/absence of regurgitate in airways
  - Presence/absence of cranial trauma
  - Extent of blunt trauma
- Animal 'survived' if:
  - No evidence of cranial trauma, **AND**;
  - Blunt trauma either absent or deemed mild by pathologist, **AND**;
  - There is no regurgitate in airways.
- Animal not 'survived'
  - If any regurgitate in airways, **OR**;
  - Any cranial trauma, **OR**;
  - Blunt trauma deemed moderate/severe by pathologist

# 2002 autopsy results

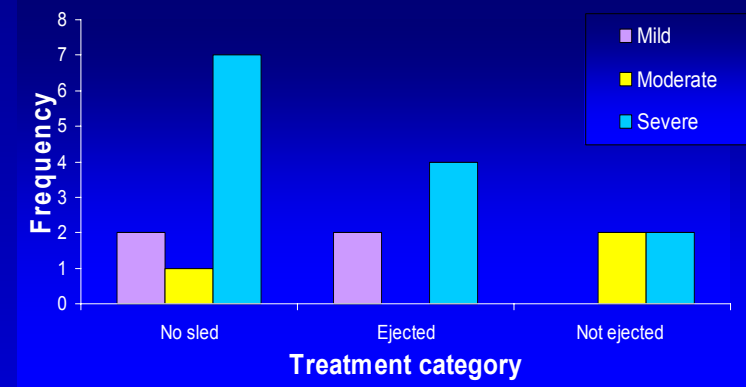
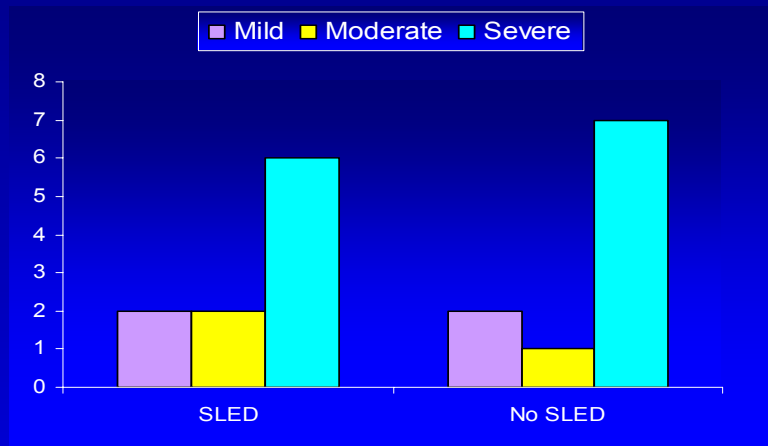
- 23 animals caught in squid fishery
- 20 autopsied to assess level of trauma
- All (100%) had evidence of blunt trauma

# Autopsy findings 2002: extent of blunt trauma



- 16 (80%) animals exhibited moderate/severe blunt trauma compromising future survival

# 2002 Autopsy findings and SLED use



- 80% of animals in nets with SLED suffered trauma injuries which would compromise survival
- 80% of animals in nets with no SLED suffered trauma injuries which would compromise survival

# Autopsy findings

- While the disparity in injuries seen in 2001 between ejected and non ejected animals is not evident, the level of injury is cause for concern, especially given that animals caught in nets with no SLEDs exhibit severe trauma injuries.
- At the time of writing it is not known what changes if any were made to SLEDs during the 2002 season.