

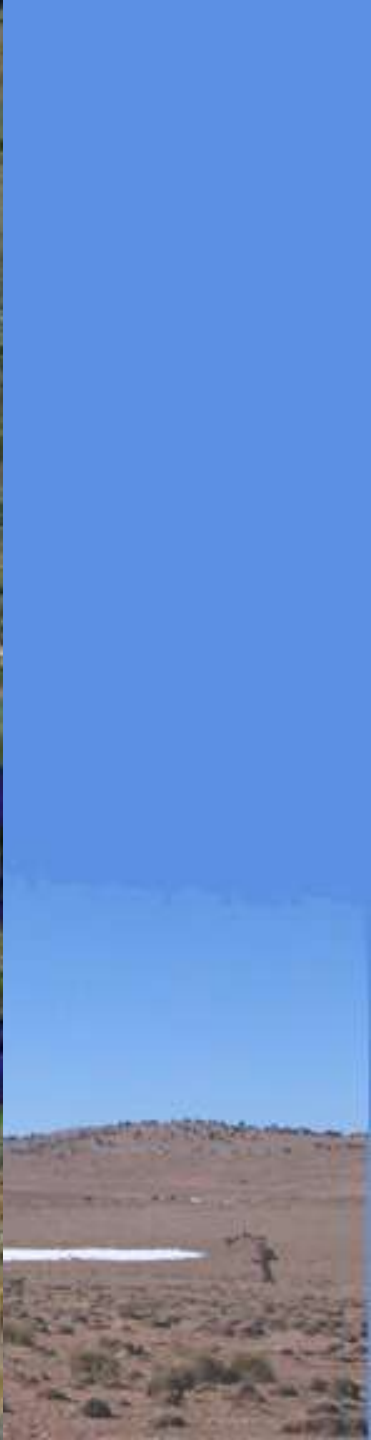
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# Pack wounds in Morocco











# Pack Wounds of Donkeys and Mules in the Northern High Atlas & Lowlands of Morocco

Sells P.D., Pinchbeck G., Mezzane H.,  
Ibourki J., Crane M.

Equine Veterinary Journal (2010)





A photograph of a dark brown donkey standing in a straw-covered enclosure. The donkey's back is covered with several large, raised, circular lesions, likely abscesses or severe skin infections. The lesions are light-colored with dark centers. The donkey is standing on a bed of straw, and a metal bowl is visible in the background.

# The Problem



# Project aims

- To determine whether the prevalence of pack wounds is higher in equids working in the wood trade compared with other trades
- To determine factors associated with the presence of a pack wound

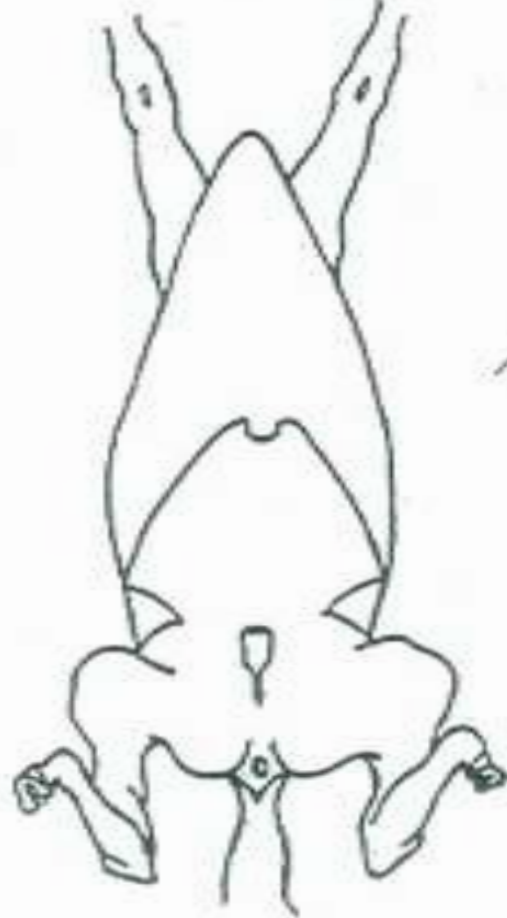
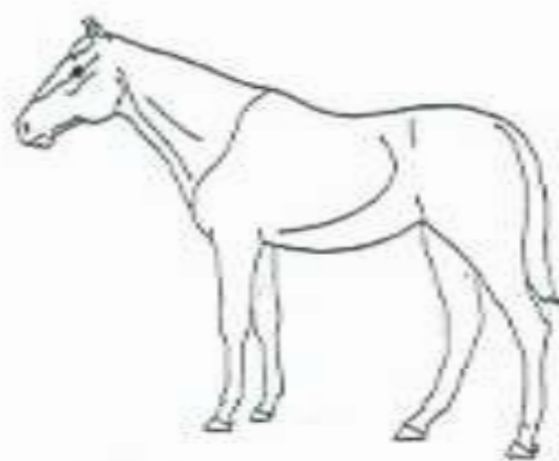
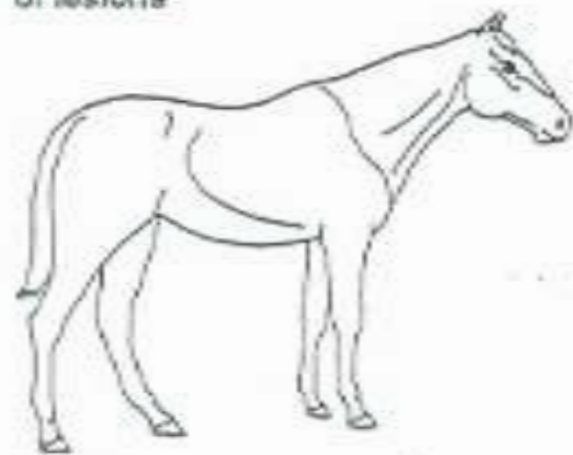


# Data collection

- Dec '07 – Feb '08
- Wood trade in the mountain region (n=56)
- Other trades in the mountain region (n=37)
- Other trades in the lowland region (n=54)



Distribution  
of lesions









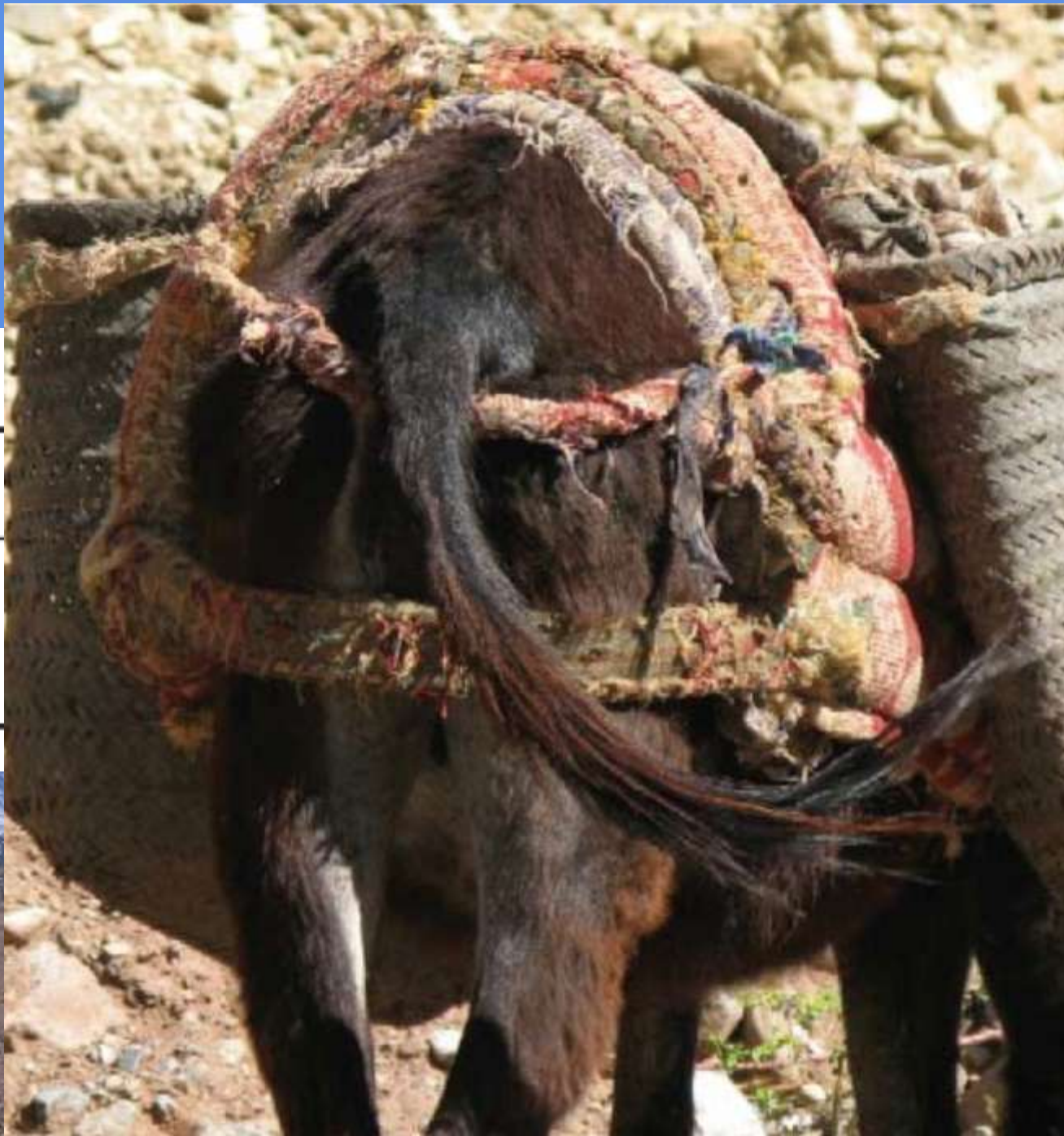
## TABLE

Score

1

2

3



s with it.







# Statistics

- Categorical data (e.g. wood trade yes/no)
  - Chi squared test
- Continuous data (e.g. body condition score)
  - $t$  test or ANOVA
  - Generalised additive models (GAMs)
- Presence of wounds
  - Univariable and Multivariable analysis



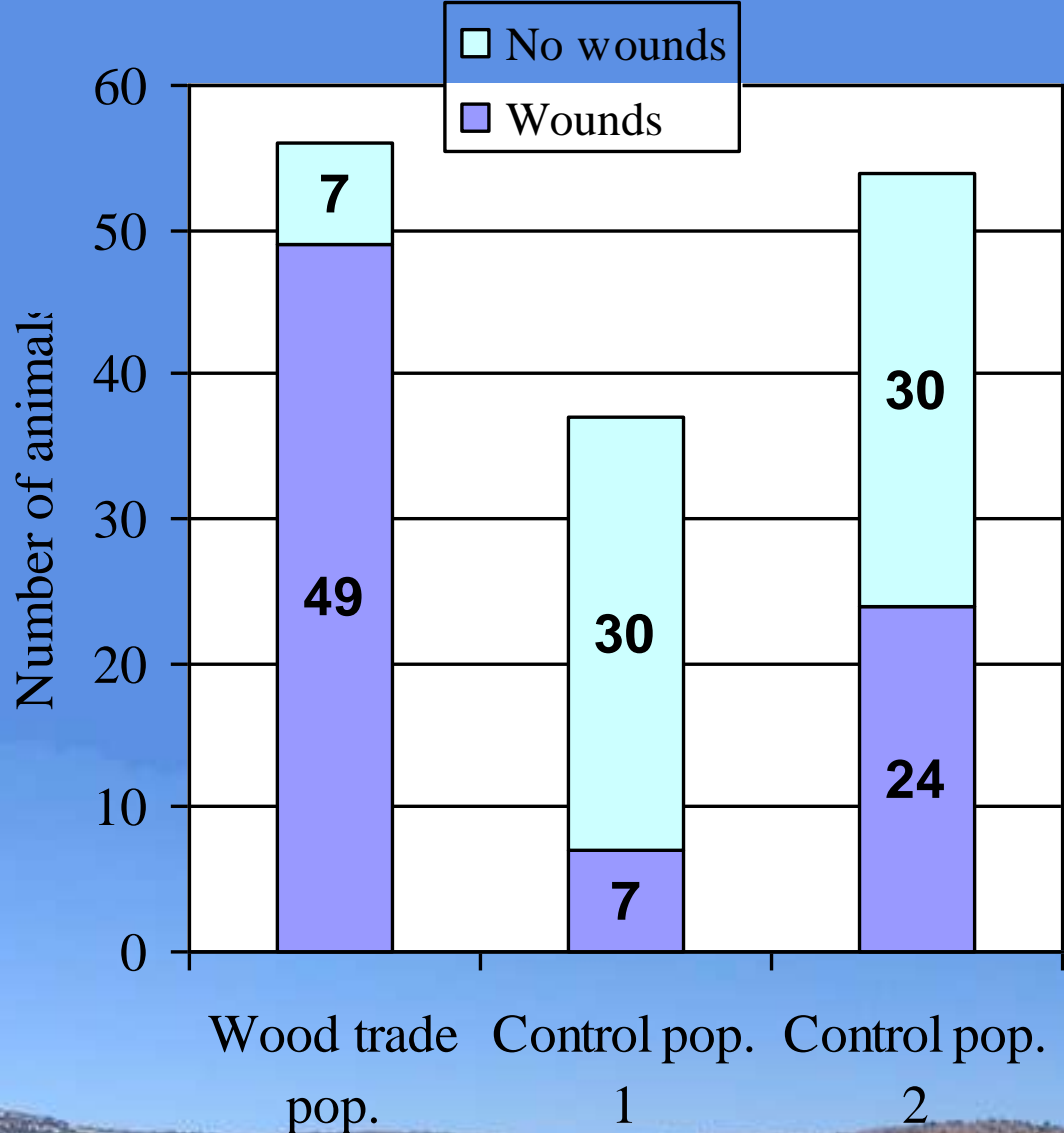


# Results

- The overall prevalence of wounds in the 3 equid populations was high (54%).



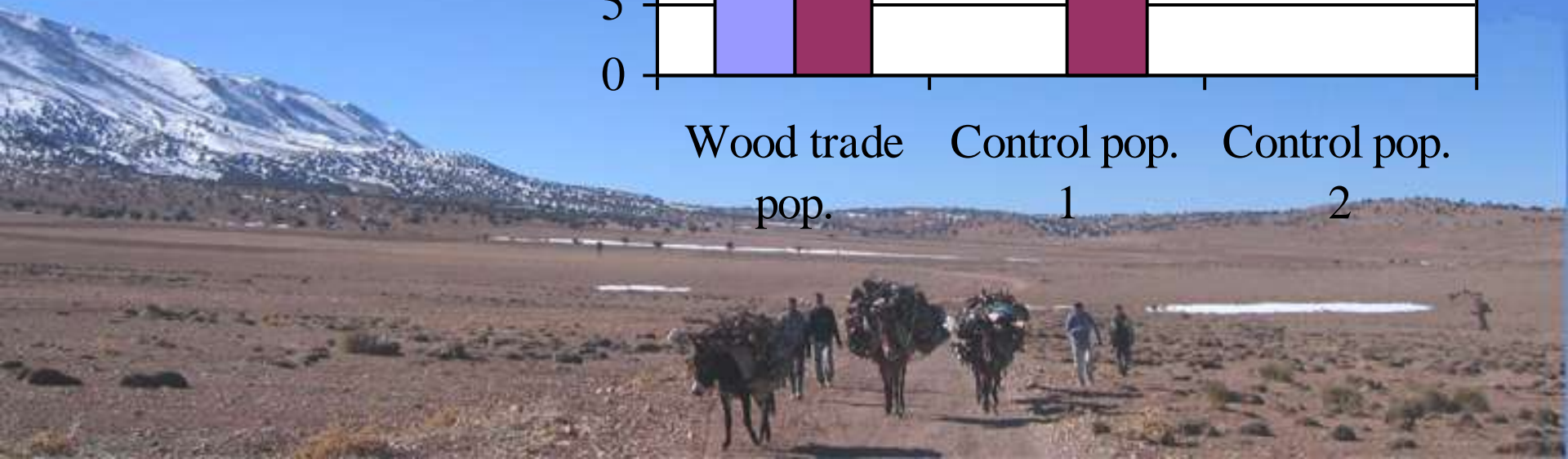
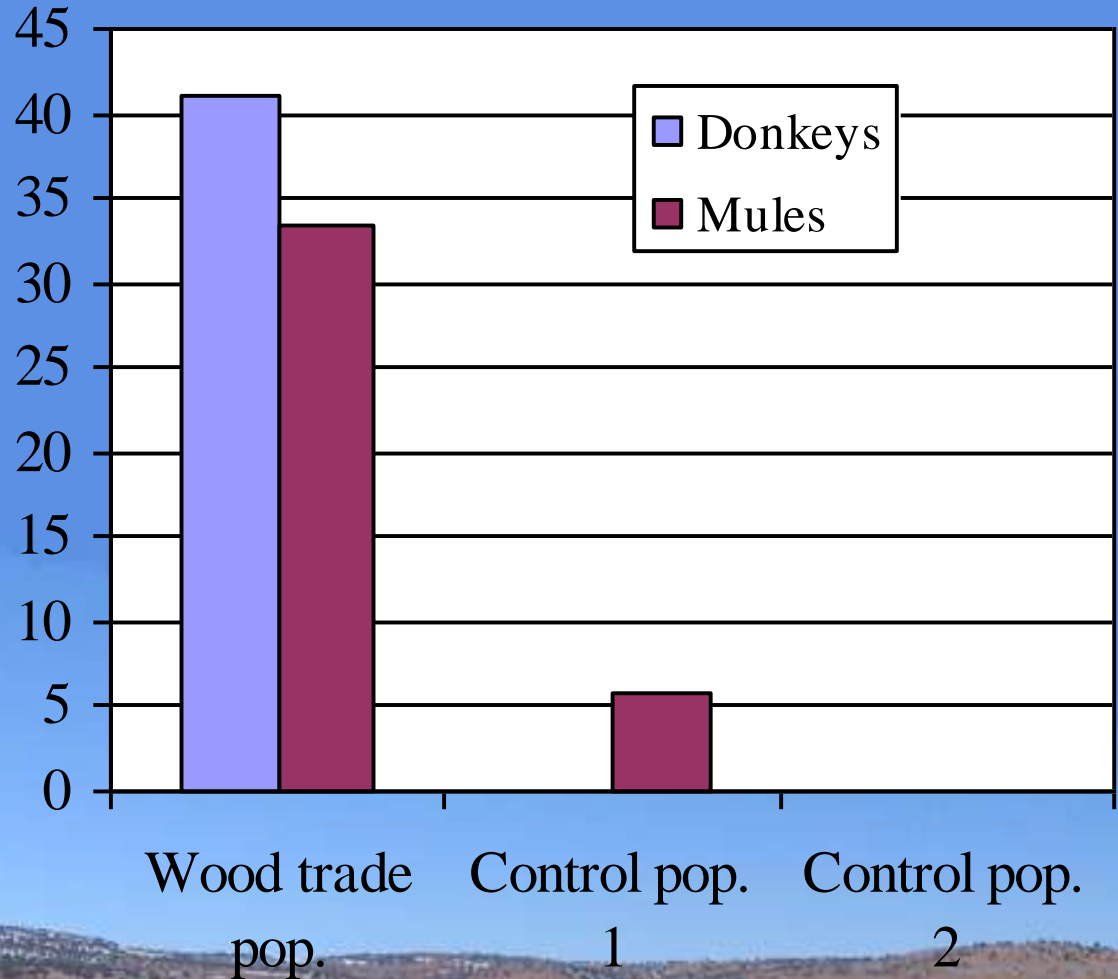
# Number of animals with pack wounds



- Is there a problem in the wood trade animals?



Percentage  
of animals  
with Grade  
2 wounds %



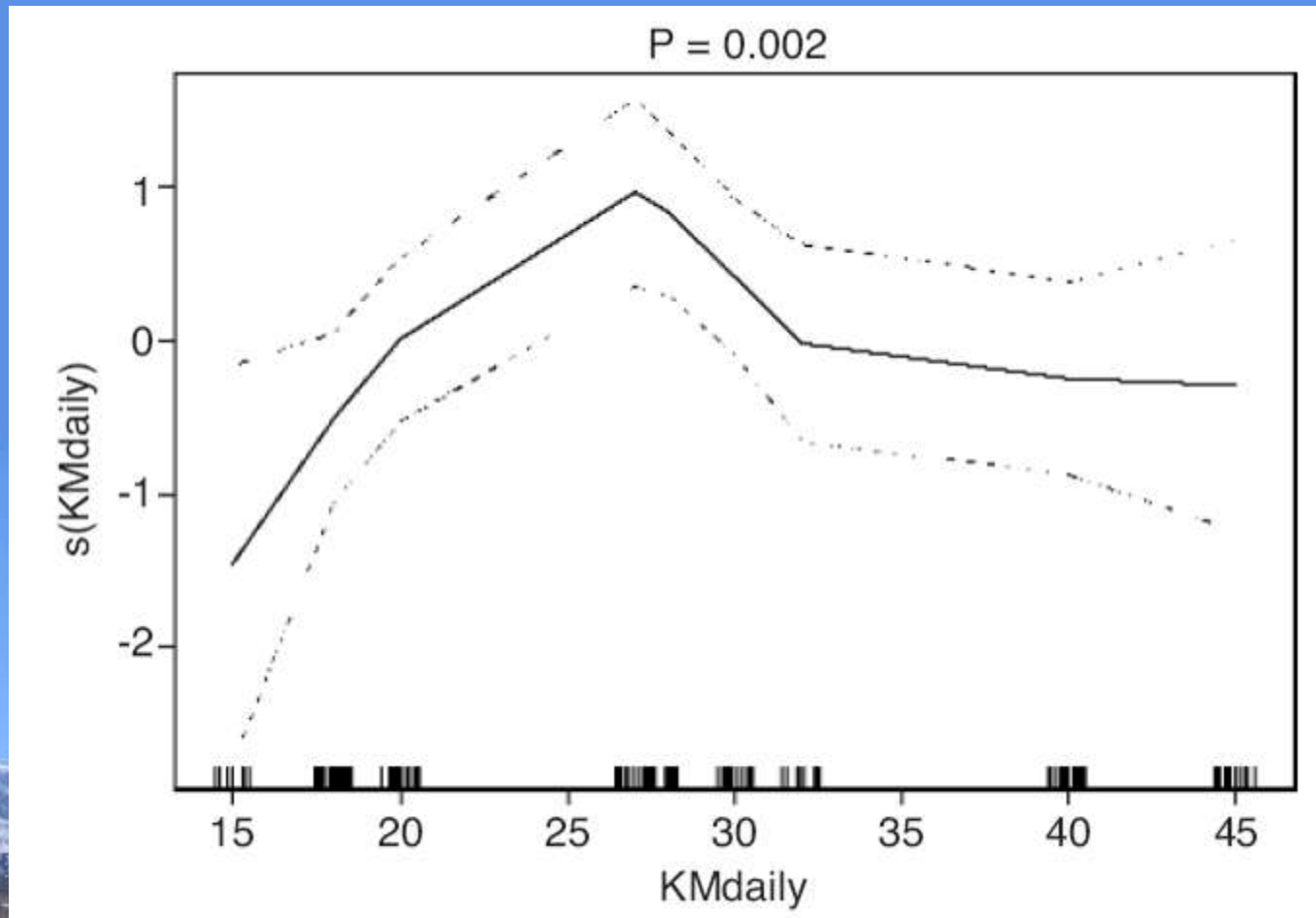
# Donkeys or mules?

- In all populations the prevalence of pack wounds was higher in donkeys (67%, 60/90) than in mules (35%, 20/57)
- The 'overall wound score' was significantly higher ( $P < 0.001$ ) in donkeys (median = 2) than in mules (median = 0)



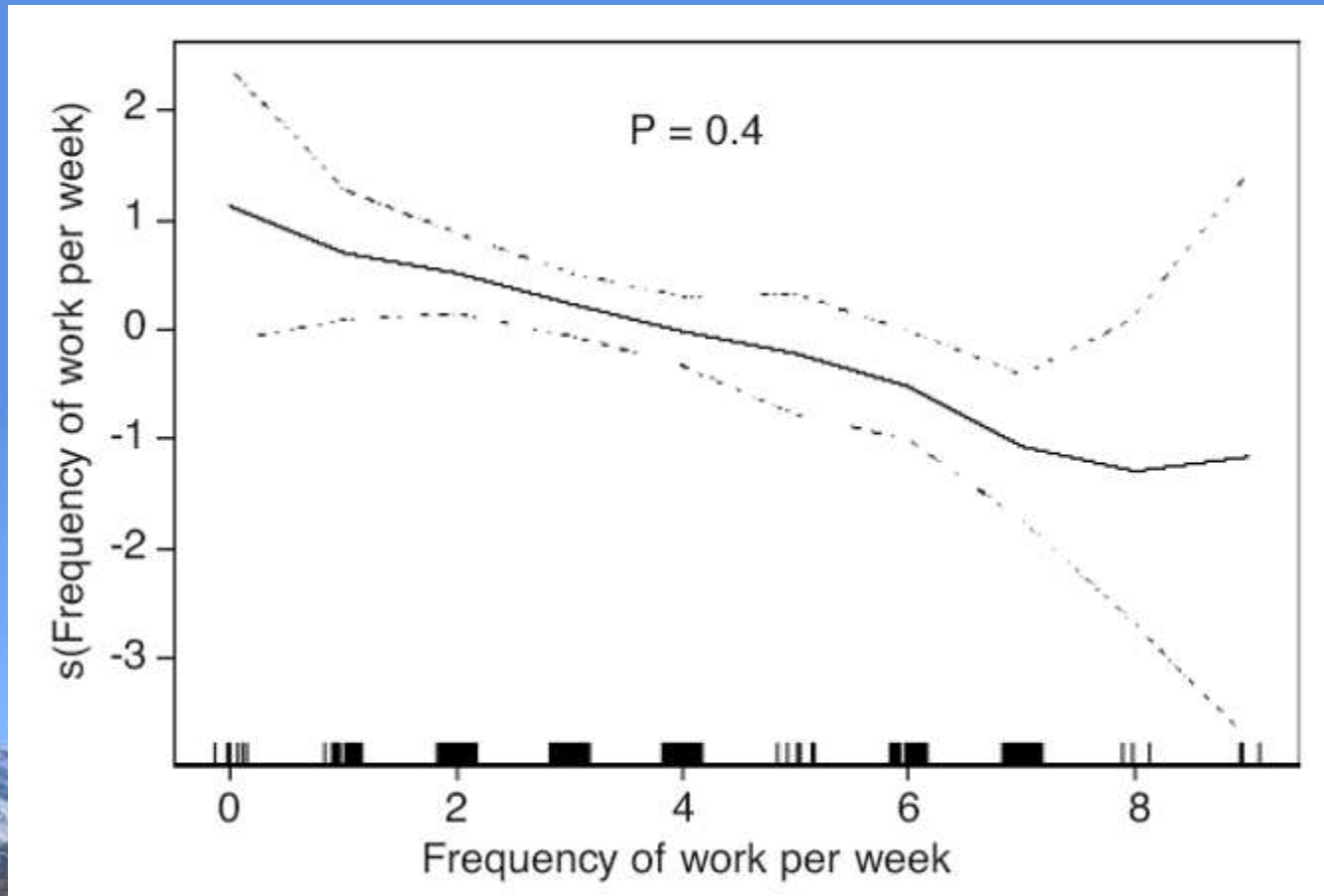


# Wood trade



- Nonlinear relationship between the distance travelled daily and the risk of suffering a pack wound at any of 3 sites

# Overall



- Linear relationship between frequency of work per week and the risk of suffering a pack wound at any of 3 sites.



# Risk factors for pack wounds

- Most common wound site was the withers (31%)



# Risk factors for pack wounds

- Low body condition score – not a risk factor for a wound





# Risk factors for pack wounds

- Significant risk associated with a dirty pack





# Risk factors for pack wounds

- Significant risk associated with tight ropes or straps







# Risk factors for pack wounds

- Increased risk associated with increasing age, being male, being a donkey rather than a mule, and travelling longer distances



# Study conclusions

- ‘Problem group’ identified
- Specific interventions may be recommended
- Ongoing monitoring of interventions in a logical, scientific manner







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Education





# Podiatry



# Dentistry





# Wound management - acute





# Wound management – chronic





# Intervention strategies





# Intervention strategies





# Hobbling











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# Acknowledgements

- Prof Derek Knottenbelt
- All the SPANA vets and technicians
- Company sponsors VES, BCF, ProPlan and Bimeda
- Awarding bodies –
  - BVA/TAWS Travel Grant
  - UFAW Research Grant
  - BEVA Trust Award





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