



Statistical Analysis of Injury Patterns in UK Greyhound Racing Relevant to the Summertime Lameness Syndrome

Reece T J Parry BVMedSci



Previous Research

Prole 1976

- Wet weather led to a decrease in injuries and a dry year led to an increase in injuries.
- Mainly caused by a large increase in toe injuries.

Iddon 2014

- Found no statistically significant relationship between month of year and injury rate.
- Also no significant relationship between temperature and injury rate.
- Did not look at categories of injuries

Method

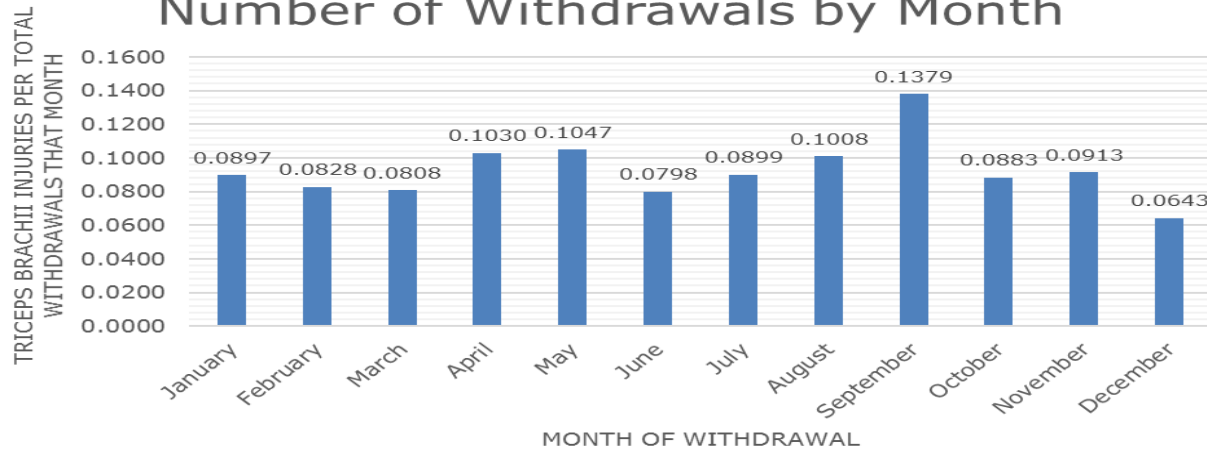
- 18 UK Tracks.
- 2004-2014.
- 5119 Post race withdrawals.
- Analysis of historic injury records.

Analysis Of Injuries:

- Anatomical region:
 - Gracilis, triceps brachii, carpal, tarsal, sandburns, feet/paws.
- Injury type:
 - Muscle, fracture, foot/sandburn, other withdrawals.

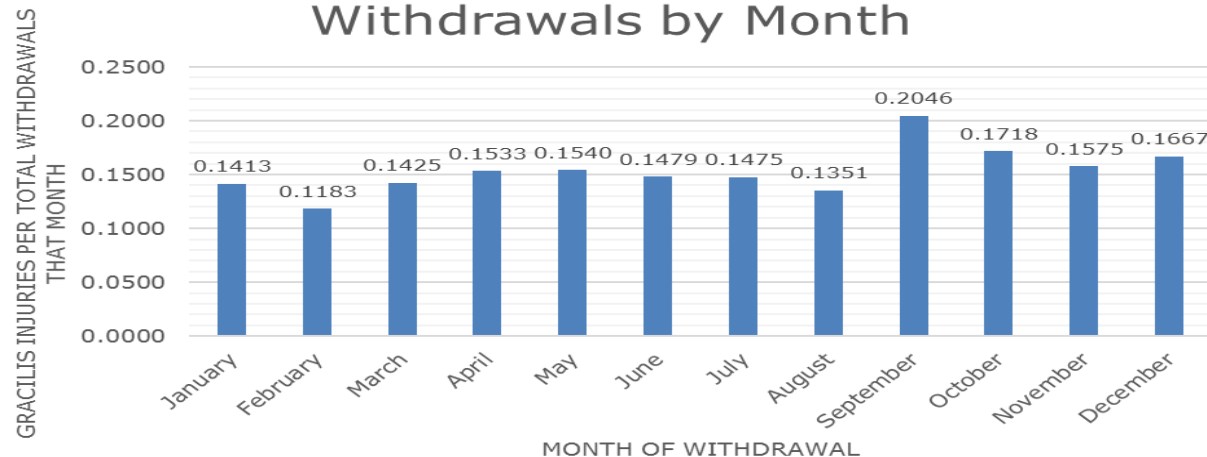
Gracilis and Triceps Brachii Injuries

Triceps Brachii Injuries per Total Number of Withdrawals by Month



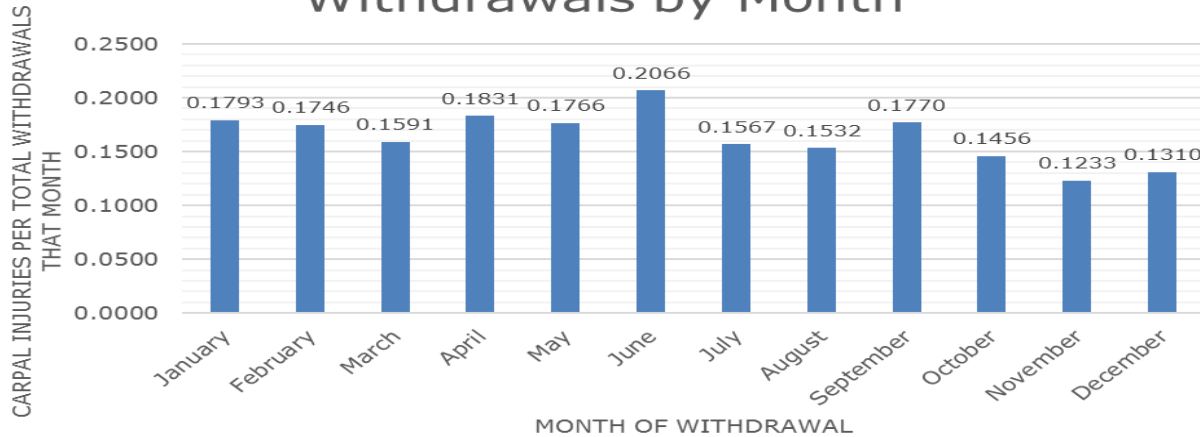
- **No significant difference** in post race withdrawals of **gracilis/triceps brachii** injuries compared to other withdrawals with month of year.

Gracilis Injuries per Total Number of Withdrawals by Month

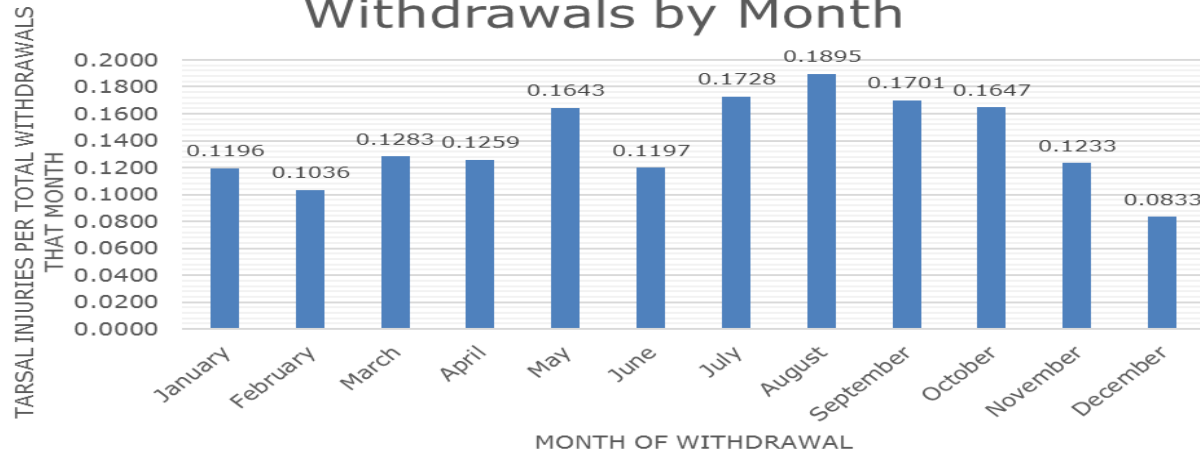


Carpal and Tarsal Injuries

Carpal Injuries per Total Number of Withdrawals by Month



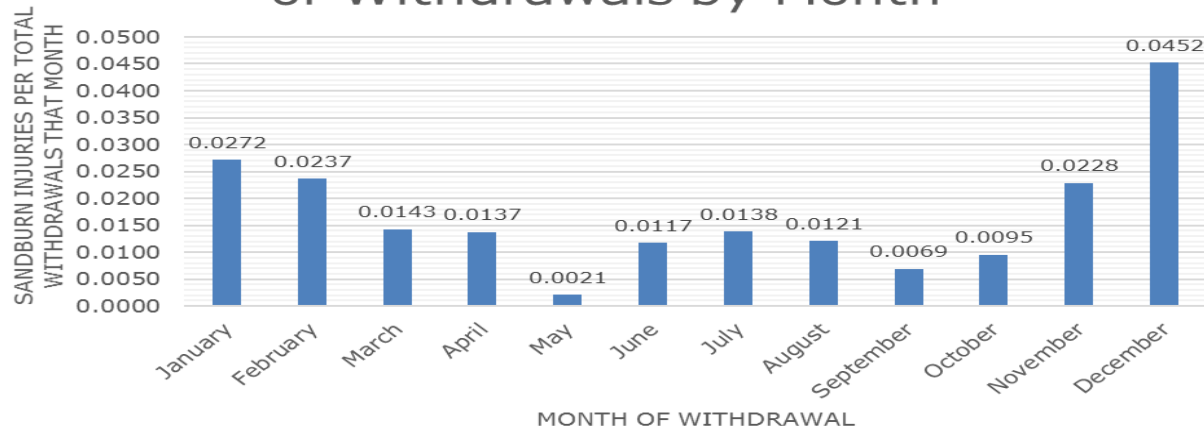
Tarsal Injuries per Total Number of Withdrawals by Month



- There is a **significant difference** in post race withdrawals of **carpal/tarsal** injuries compared to other withdrawals with month of year.

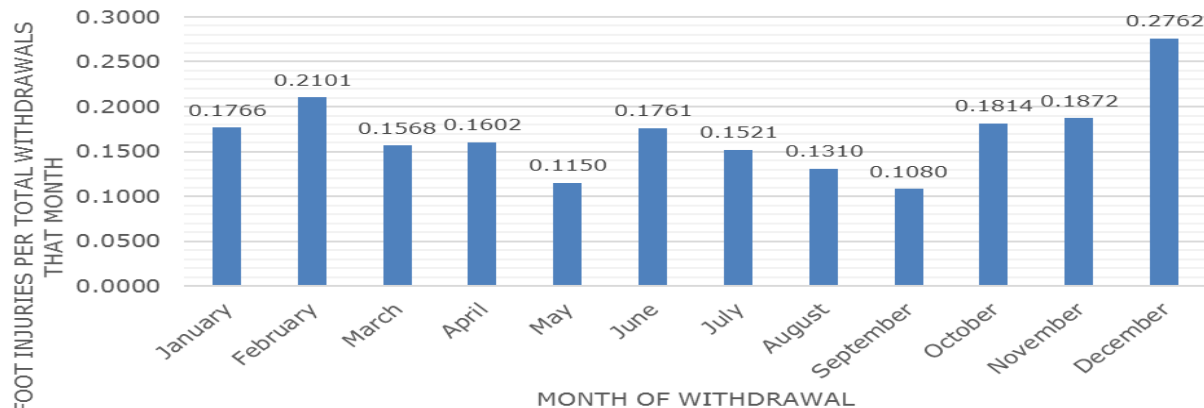
Sandburn and Foot Injuries

Sandburn Injuries per Total Number of Withdrawals by Month

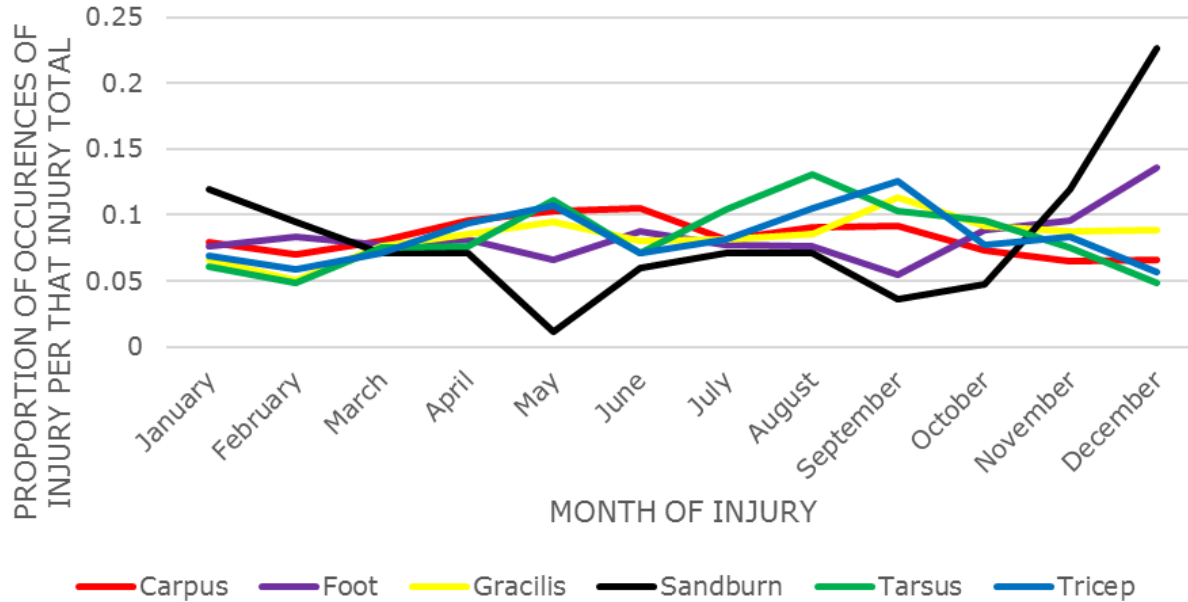


- There is a **significant difference** in post race withdrawals of **sandburn/foot** injuries compared to other withdrawals with month of year.

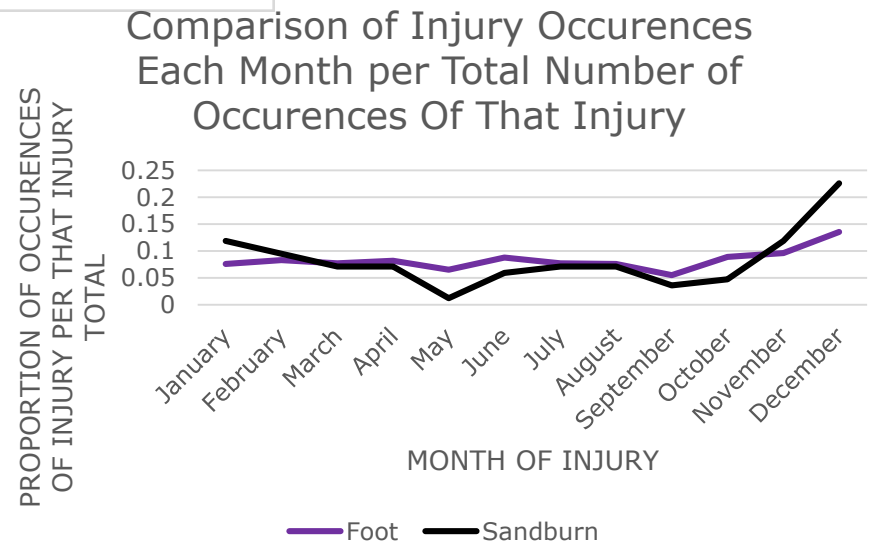
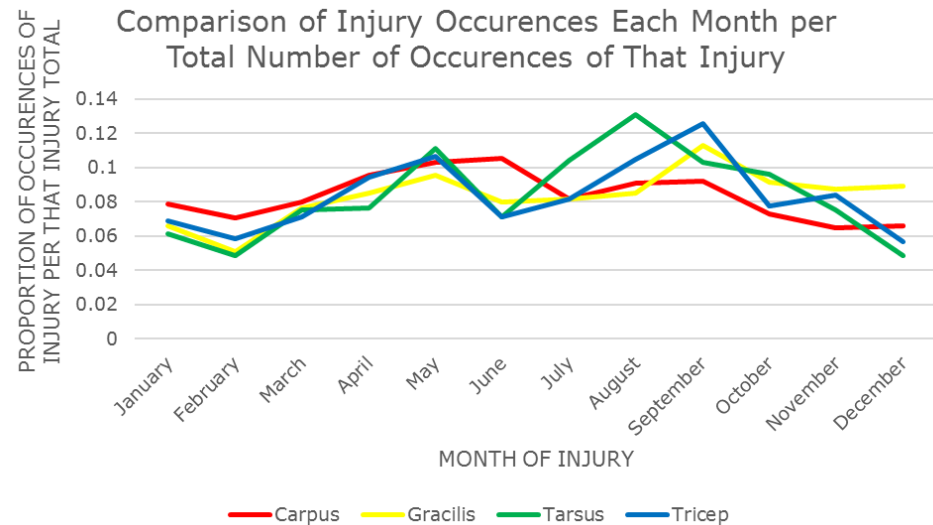
Foot Injuries per Total Number of Withdrawals by Month



Comparison of Injury Types per Total Injuries Of That Injury Type by Month



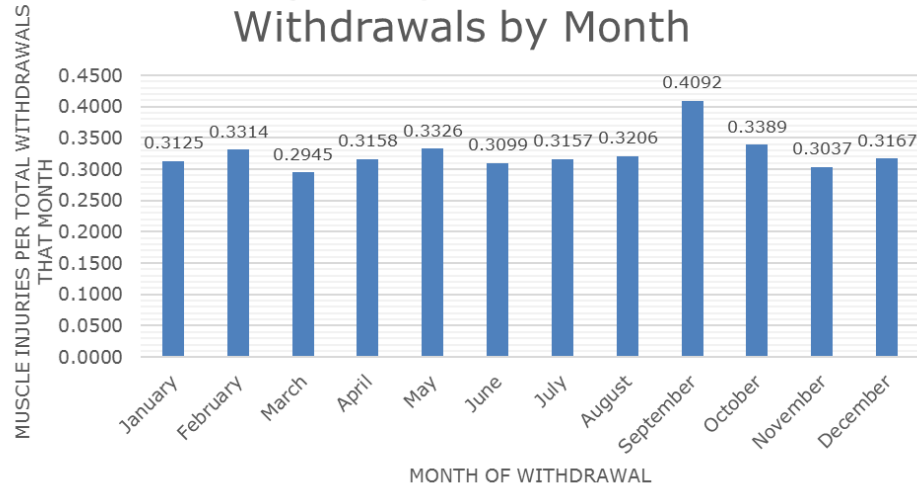
- Two basic patterns are followed by the six injury groups.



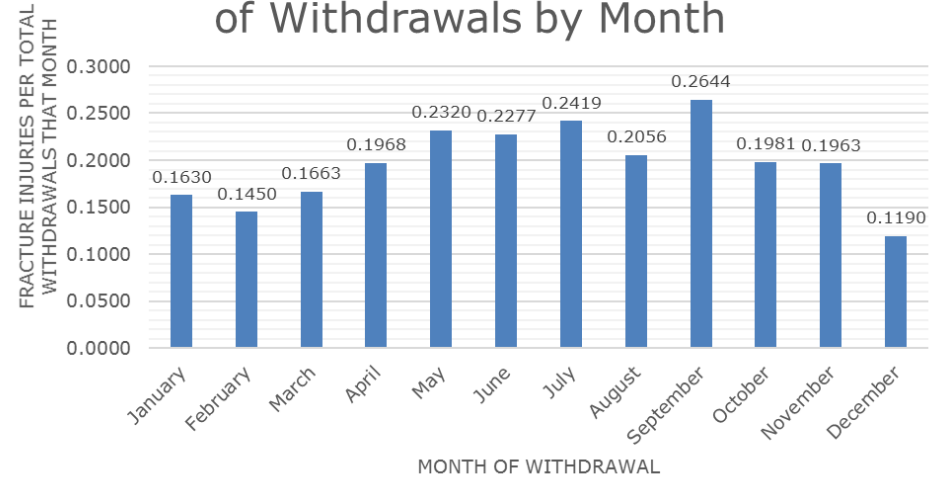
Injuries By Group



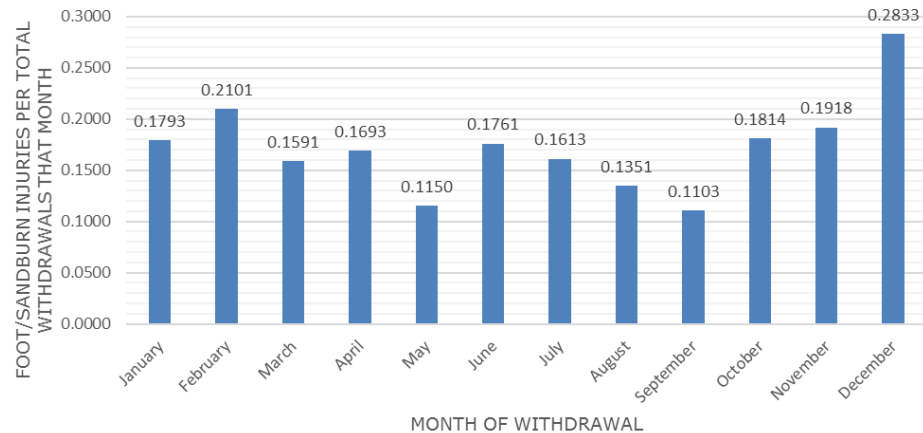
Muscle Injuries per Total Number of Withdrawals by Month



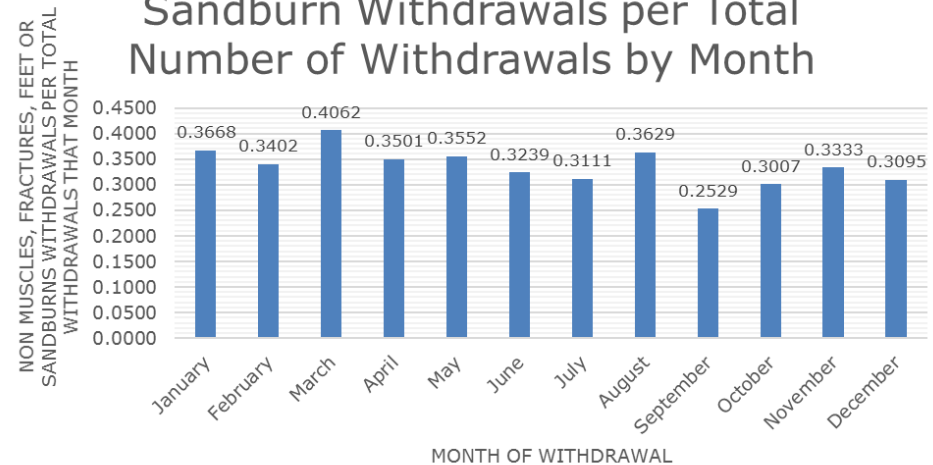
Fracture Injuries per Total Number of Withdrawals by Month



Foot/Sandburn Injuries per Total Number of Withdrawals by Month



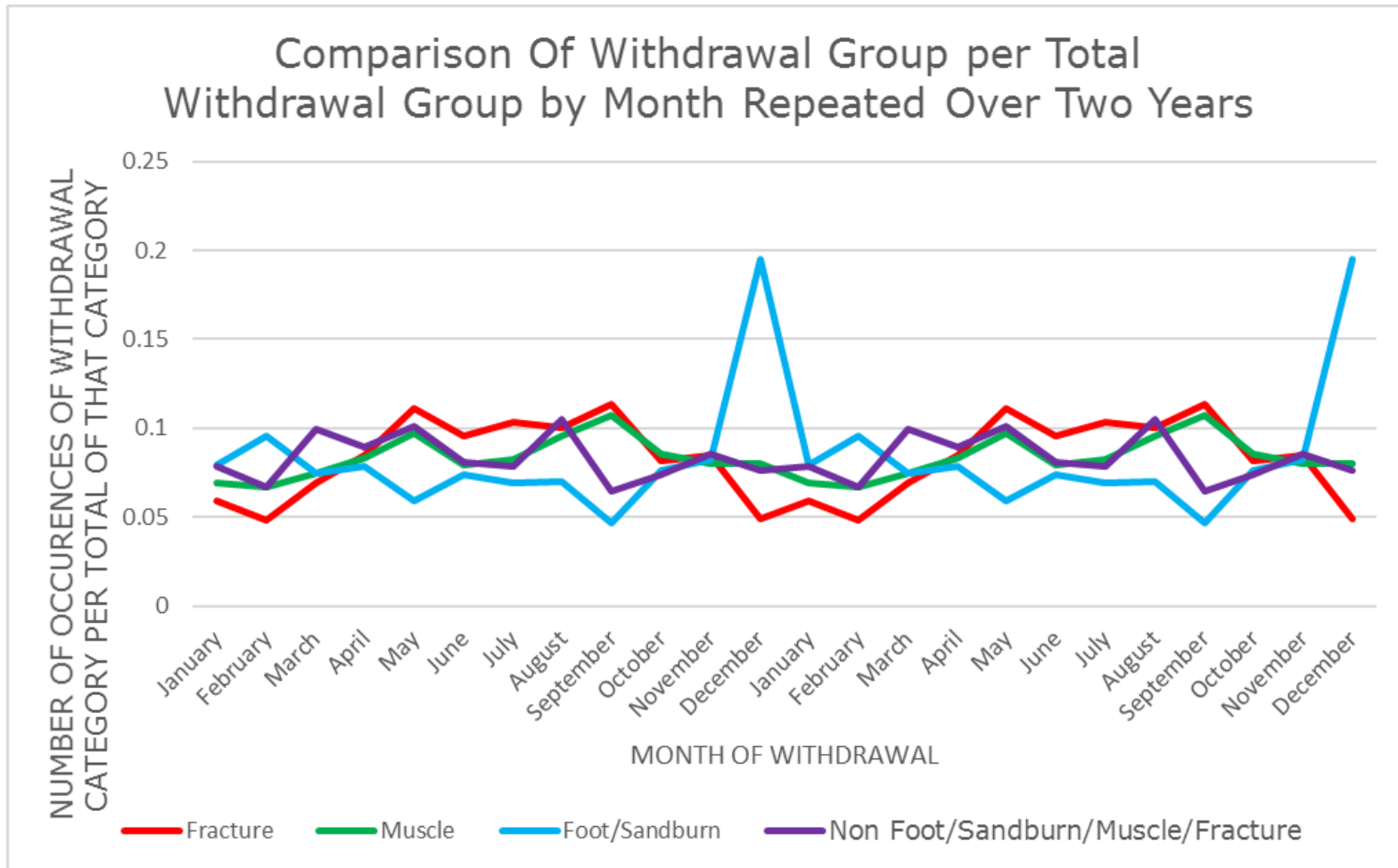
Non Muscle, Fracture, Foot or Sandburn Withdrawals per Total Number of Withdrawals by Month



Injuries By Group

- There is **no significant** difference in post-race withdrawals of **muscle injuries** compared to other withdrawals with month of the year.
- There is **significant** difference in post-race withdrawals of **fracture** injuries compared to other withdrawals with month of the year.
- There is **significant** difference in post-race withdrawals of **foot/sandburn** injuries compared to other withdrawals with month of the year.
- There is **significant** difference in post-race withdrawals **not due to muscle, fracture, foot or sandburn** injuries compared to withdrawals of muscle, fracture, foot or sandburn injuries with month of the year.

Injury Group Comparisons



Summary

- The data shows evidence of a seasonal lameness of different injury types.
- A summer peak of fracture injuries (Speed?).
- A winter peak in foot injuries (Salt? Frost?).
- Muscle injuries constant (September peak?).
- These two injury types may mask seasonal change in overall injuries found by previous studies because they rise and fall oppositely.

Areas for Further Research

- Peak of foot injuries in particular sandburn in December.
- Peak of fracture injuries in the summertime.
- The September peak in muscle injuries?
- Further breakdown and analysis of the “others” category and different fracture and muscle injuries.

Acknowledgments

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- Dr Richard Payne MA VetMB DProf MRCVS for organising the entry of greyhound withdrawal data, creating the database and allowing the author to use it.