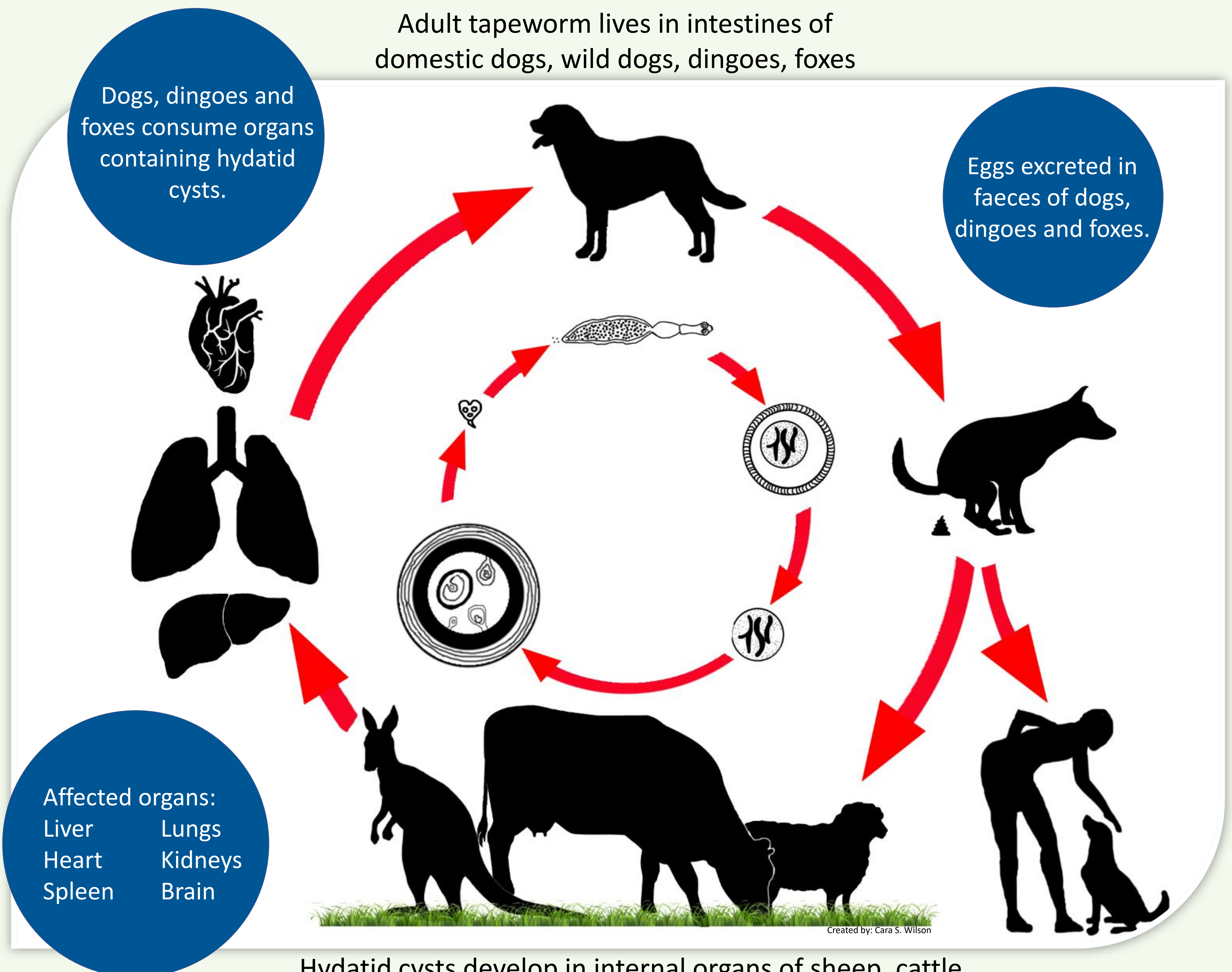


Hydatid disease in the Australian beef industry

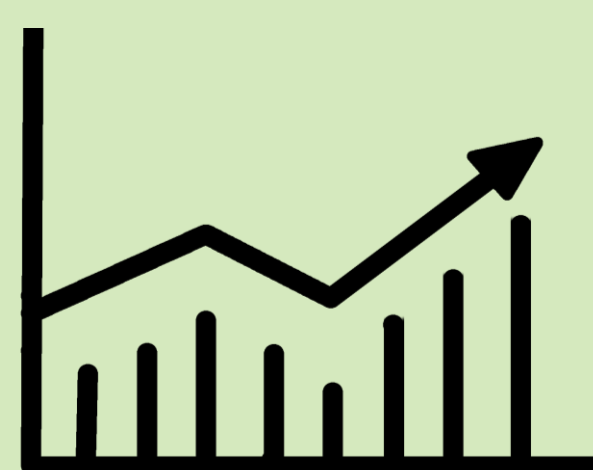
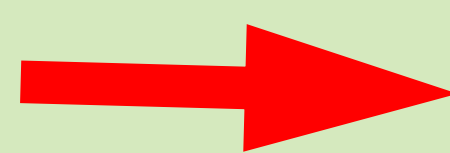
Hydatid disease is caused by a small tapeworm that lives in the intestines of dogs, dingoes and foxes. In cattle, sheep, kangaroos, wallabies, pigs and humans, fluid-filled hydatid cysts develop in the internal organs (offal). There are rarely any clinical signs, however, infection with hydatid cysts is usually identified at slaughter. Infected organs are condemned and rendered or downgraded to pet food leading to economic losses to the industry.



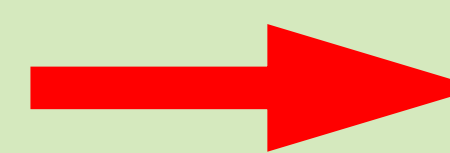
- Humans become infected by handling infected dogs and/or their faeces.
- Infection in humans can be fatal.

Methods

1.2 million beef cattle slaughtered at eastern Australian abattoir between 2010-2018.



Data analysed for reports of hydatid disease in cattle and economic losses evaluated.



Survey of 62 Australian beef producers.

Results

- 33% of cattle infected with hydatid disease¹.
- Cattle were reported infected in liver, lungs, heart, kidney and spleen¹.
- Most cattle were reported infected in the liver and/or lungs¹.
- Approximately AU\$94,000 lost per year at this abattoir due to condemnation and downgrading of organs infected with hydatid cysts².
- Approximately AU\$6.70 lost per infected animal due to condemnation and downgrading of organs infected with hydatid cysts².



Knowledge

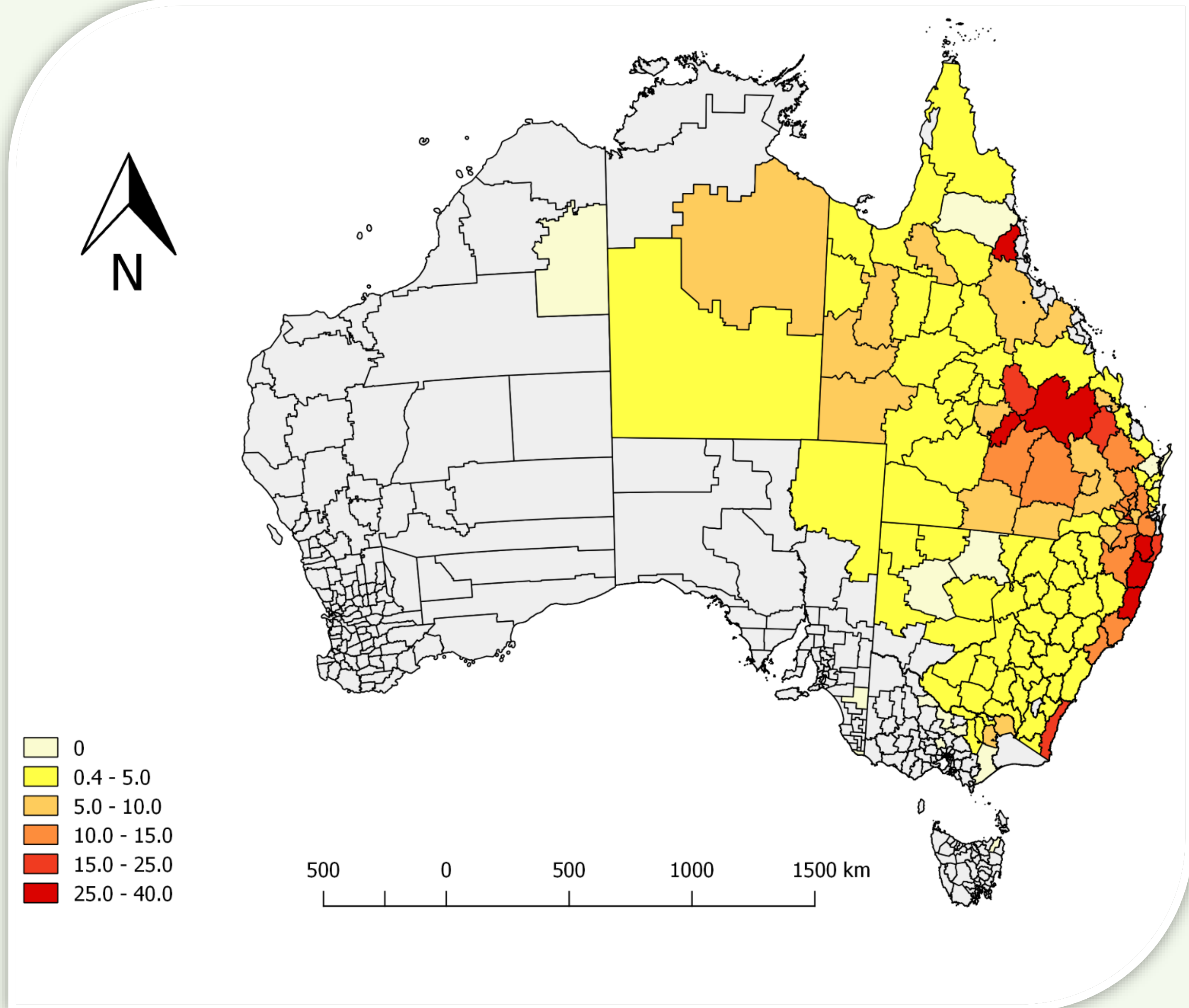
77% of producers had heard of hydatid disease in cattle.
61% knew how hydatid disease is transmitted.
48% did not know how to prevent transmission.
29% did not know that humans can be infected.

Practices

86% of producers did not deworm their dogs monthly (not enough to prevent infection).
19% feed dogs raw offal or meat products.
82% confine domestic dogs.
71% do not dispose of offal safely.

Attitudes

Producers do not feel well informed about hydatid disease. Human infection and a lack of knowledge/information were the most common concerns among beef producers. Almost all respondents would take action if they knew their cattle were infected.



Proportion of cattle infected with hydatid disease in Property Identification Code Regions throughout Australia. Cattle included in study were slaughtered at an eastern Australian abattoir¹.



How to prevent infection in humans and animals:

- Do not feed domestic dogs raw offal (internal organs).
- Feed dogs commercially available dry dog food.
- Deworm domestic dogs **monthly** with a product containing **praziquantel** – weigh dogs prior to deworming to ensure correct dose is given.
- Do not allow domestic dogs to roam freely without supervision.
- Do not allow dogs to scavenge dead animals.
- If you hunt wildlife or pest species, it is still important that you do not feed any raw offal to your dogs and you dispose of the carcass appropriately.
- Dispose of offal and carcasses in a way that prevents scavenging by wild dogs, foxes or domestic dogs (for example, offal pit, burn immediately, deep burial).

Acknowledgements

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References

- ¹Wilson, C.S., Jenkins, D.J., Brookes, V.J., Barnes, T.S., 2019. An eight-year retrospective study of hydatid disease (*Echinococcus granulosus sensu stricto*) in beef cattle slaughtered at an Australian abattoir. *Prev Vet Med* 173.
- ²Wilson, C.S., Jenkins, D.J., Brookes, V.J., Barnes, T.S., Budke, C.M., In press. Assessment of the direct economic losses associated with hydatid disease (*Echinococcus granulosus sensu stricto*) in beef cattle slaughtered at an Australian abattoir. *Prev Vet Med*.

More information

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