

Horse blind date could lead to loss of foal

March 29 2011

Foetal loss is a common phenomenon in domestic horses after away-mating, according to Luděk Bartoš and colleagues, from the Institute of Animal Science in the Czech Republic. When mares return home after mating with a foreign stallion, they either engage in promiscuous mating with the home males to confuse paternity, or, failing that, the mares abort the foal to avoid the likely future infanticide by the dominant home male. The study is published online in the Springer journal *Behavioral Ecology and Sociobiology*.

In the Czech Republic, it is common practice for domestic horse mares to be removed from their home environment and transported elsewhere for mating. After conceiving, they are returned back into their home environments and social groups, often with familiar males. The authors looked at whether there was a link between the common practice of away-mating and foetal loss.

They distributed a questionnaire on reproduction to private horse owners in the Czech Republic through an equine internet server. They compared the frequency of abortion between mares which had conceived with a home stallion and those mated with a foreign stallion. They then looked at the sexual behavior of mares returning from away-mating.

Mares mated with a foreign stallion aborted in 31 percent of cases while none of the mares mated within the home stable aborted. Furthermore, mares were more likely to have disrupted pregnancies when home males were in adjacent enclosures.

Bartoš and colleagues' results uncover a new phenomenon in domestic horses: a female counter-strategy to male infanticide. It appears that domestic mares choose not to raise foals fathered by stallions outside the home herd. If the dominant home male is not the father, he may subsequently attempt infanticide. Two things happen as a result. Either mares manipulate the males' paternity assessment by promiscuous mating with home males. Alternatively, if the mares are physically unable to have sexual activity with home males, i.e. they are in separate enclosures, they are seven times more likely to abort the foetus, to prevent the waste of energy in producing offspring likely to be lost.

The authors conclude: "The phenomenon shown in this study may explain the high incidence of domestic horse foetal loss. The regular practice of transporting the mare for mating or artificial insemination with a foreign stallion, and then bringing her back to an environment with home males, is probably one of the main causes of such high percentages of pregnancy disruption in domestic horses."

More information: Bartoš L et al (2011). Promiscuous behavior disrupts pregnancy block in domestic horse mares. *Behavioral Ecology Sociobiology*. [DOI:10.1007/s00265-011-1166-6](https://doi.org/10.1007/s00265-011-1166-6)

Provided by Springer

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