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The great pretenders

The natural, hard-wired responses of donkeys are quite different to those of horses and ponies — even though many people treat them just the same. In the eighth part of the series on animal behaviour, **Mandie Rickaby** looks at what is going on between those huge hairy ears

omehow you can't help feeling sorry for donkeys - always the bridesmaid and never the bride when compared to their glamorous cousin, the horse. There may be only two chromosomes between them (horses being the richer, at 64), but evolution from their common ancestor has set donkeys on a path where they can never achieve the status of noble steed. After 5,000 years of domestication, millions of them are still the unsung heroes of impoverished communities worldwide.

Yet in wealthy industrialised nations, where 'donkeypower' (actually a whimsical engineering unit representing one third of

horsepower) is measured more by intrinsic charm and adorableness than practical physical strength, the contrast couldn't be more marked. In the UK, for example, where donkeys are more likely to be acquired as companion animals, their relatively pampered lives allow their affectionate and idiosyncratic natures to blossom. Instead of being regarded as second-rate horsey substitutes, they are coming into their own as providers of therapeutic services to special needs children's schools, psychiatric units, dementia providers and care homes.

It isn't just that donkey dimensions make it easier for them to fit into elevators, but their demeanour and amenability to cuddling does make for a safe and rewarding experience for humans.

Carol Morse, secretary of The Donkey Breed Society, stops far short of the 'Zenlike aura' claims being made by some wellness gurus, but she does feel that there is a donkey USP.

"They seem to have this empathy and understanding," she says. "They seem to recognise if people are vulnerable. They are quieter and more docile than horses, and definitely have a calming effect on people."

WHAT'S THE DONKEY DIFFERENCE?

Traditionally, the tendency to treat donkeys as small versions of horses has led to the kind of misplaced insults that pepper the English lexicon - 'asinine', 'jackass', 'stubborn as a mule', etc. Obviously, the physical differences are (mostly) pretty hard to miss, but it is the deviation in their instinctive responses to the natural fears they share with horses (and other prey herbivores) that makes donkeys inimitably act like themselves. Donkeys (also referred to as asses or burros) are the pragmatists of the equine fraternity, with a deep sense of self-preservation that has never been able to depend on those sure-footed but stubby little legs to speed them away from danger.

Research has shown that the hard-wired instincts of the domesticated donkey (Equus asinus) have been uniquely shaped through their ancestry from the African wild ass. Domesticated horses and ponies (Equus caballus), like wild asses and zebras, are all members of the Equidae family of mammals. However, the ancestors of horses and ponies had the relative luxury of inhabiting natural plains habitats, with the vegetation and water supplies to support the formation of large herds or 'bands' led by a dominant stallion. Donkey ancestors, however, which lived in desert and semi-arid mountainous regions, had to compete for sparse vegetation and water sources - leading to browsing as well as grazing habits (hence modern management problems with obesity-related health issues).

SURVIVAL SKILLS

As a means of survival, donkey ancestors adapted to a small group or solitary existence, which only changed for mating purposes, or when resources became more abundant. Without the protection of a herd, donkeys developed their characteristically independent streak, and often a need to 'hold' territory or water sources to prevent competition.

Consequently, they have had to rely on their own

singular armoury of skills as part of evolutionary survival, which come to the fore when they are fearful, under threat, or pressure.

These include:

- · Freezing.
- Cautious analysis of the extent of a threat, or whether something is in their best interest (if a donkey flees, it will not be in 'blind' panic).
- Strategic deception to avoid appearing weak when ill.
- A willingness to fight predators when no other option is open to them.

It can come as a surprise to the uninitiated that behind that butter-wouldn't-melt exterior is an animal capable of killing rats, coyotes, or severely injuring a dog or small livestock to protect home territory. This fight instinct also means that uncastrated males require careful, experienced handling.

INSTINCTIVE FEARS

As with all prey herbivore mammal species, donkeys have a flight zone – a personal space bubble around them the extent of which will vary according to how much they have been handled in their lives. The point of balance is at the shoulder, and some competitors in burro racing use it to keep the motion going forward (see box, right). Their natural reactions may be subtly different to those of horses and ponies, but donkeys still retain instinctive fears which are important to recognise as part of their behaviour pattern.

These are:

• Fear of predators or predator-like behaviour. It is often assumed that donkeys will make good guardians of smaller stock against predators, but this isn't always the case. Donkeys need to be gradually acclimatised to other species to feel the need to protect them, otherwise they may end up as aggressors in competition for territory or

RUNNING FOR GOLD

Sports that test the stamina of man (or woman) and beast are hardly rare, but few can beat the eccentricity and quirky good humour of Colorado's infamous burro racing. Regulated by the Western Pack Burro ASS-ociation (WPBA), the sport involves competitors running or walking alongside, behind, or in front of their donkey partners for distances of five miles and upwards into the Rocky Mountains - the winner being the first to 'get their ass over the line'.

Now the official summer heritage sport of Colorado, burro racing can be traced back to 1949, in Fairplay, where it was dreamed up as a way of celebrating the role that donkeys had played in the formation of mining towns back in the Gold Rush. As part of the rules, donkeys have to carry a saddle pack equipped with an honorary gold pan, pick and shovel (special little boots or shoes are optional), but their 'prospecting' partners are never allowed to ride them.

Keeping donkeys as hiking companions is quite common in this part of the world and so running with them competitively is not an alien concept — although it does involve a lot of training.

Says WPBA president, Eric Lynn: "Teaching a donkey a skill and giving it a job not only strengthens the relationship between the human and the donkey, it contributes to the donkey's mental and physical wellbeing." Generally, vets are on hand on race days (they often take part), and competitors are encouraged to have donkeys checked out beforehand.

"Because donkeys have such a strong sense of self-preservation, we defer to them to let us know when they are not at 100%," continues Eric. "So, our racers know that if the donkey seems to be having a tough day then they shouldn't push him."

Popularity of the sport is spreading to states across the US, and the WPBA is keen to get races going in Europe. Anyone interested can contact Eric Lynn directly at eric@originalatv.com. Find the WPBA website at www.packburroracing.org



Donkey competitors have to carry prospectors' paraphernalia (but never a human) to take part in the American sport of burro racing



From endurance athletes to charity runners to ordinary owners, the sport of burro racing attracts all kinds of competitors to ex-mining towns like Leadville in Colorado, US



The Buena Vista pack burro race is one of the sport's Triple Crown events. It is part of the town's annual festival of culture and history



A classic underdog at just 32in to the shoulder, Buttercup has become a multiple Triple Crown champion of burro racing. She was originally bought as a children's pet by owner and runner, Martin Sandoval

- resources. (Conversely, donkeys can themselves end up being bullied or intimidated by cattle, say, or even Shetland ponies if they are sharing a field shelter.) Pet dogs can be viewed as potential predators, and, without good management, can be a possible problem.
- Fear of novelty. New objects are attractive when approached voluntarily, but can be scary when they make an unexpected appearance or donkeys are pressurised into accepting them.
- Fear based on previous experiences. Donkeys have long memories and it can be difficult, if not impossible, to eradicate experiences of bad treatment.

• Innate fears. These include falling (say from an unsteady ramp), being expected to move from light to darkness (as in a gloomy trailer interior), isolation and restraint, including stabling (donkeys are happiest with shared sleeping arrangements).

DONKEYS IN LOVE

Donkeys are sometimes used as calming buddies for other equines (such as racehorses), but it is always in their best interest to have the companionship of their own kind. As a general rule, they can form intense emotional bonds with a single fellow donkey (male or female) that can run so deep that they literally pine

themselves into illness if separated. Think along the lines of a Victorian heroine dying of a broken heart. For this reason, owners often have to put in the training work to acclimatise donkeys to temporary separations (for a show, say). Similarly, if a donkey dies, its companions need to be given time with the corpse to assimilate the fact that their friend will not be returning.

The Donkey Sanctuary, which has 7,000 donkeys in its care in the UK and Europe (either in centres or through its 'guardianship' home scheme), actually has a sort of Tinder dating service for bereaved donkeys in recognition of the health need to find a speedy replacement.

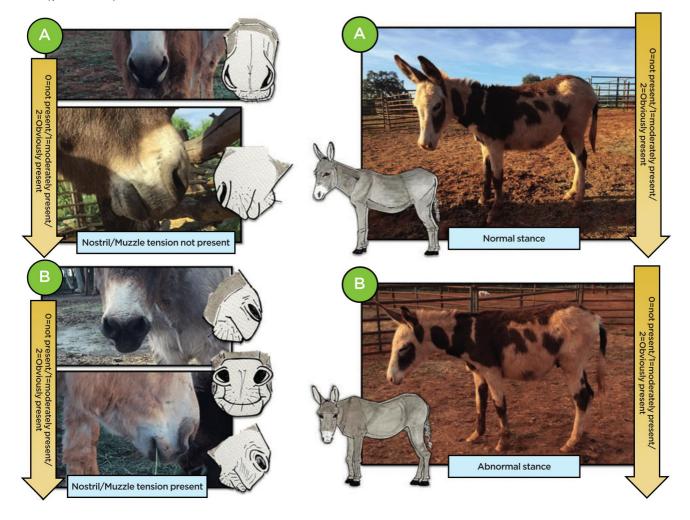
MASTERS OF DECEPTION

One of the most noteworthy aspects of donkey behaviour - and a welfare challenge for owners – is the tendency to mask signs of pain or illness. It is a trait shared with some horse and pony breeds and stoical prey species, such as sheep, but donkeys are capable of putting in an Oscar-winning performance. They will even resort to 'sham' (or pretend) eating, a kind of 'nothing to see here' lip-smacking device to fool predators (which is why observations should be made out of sight).

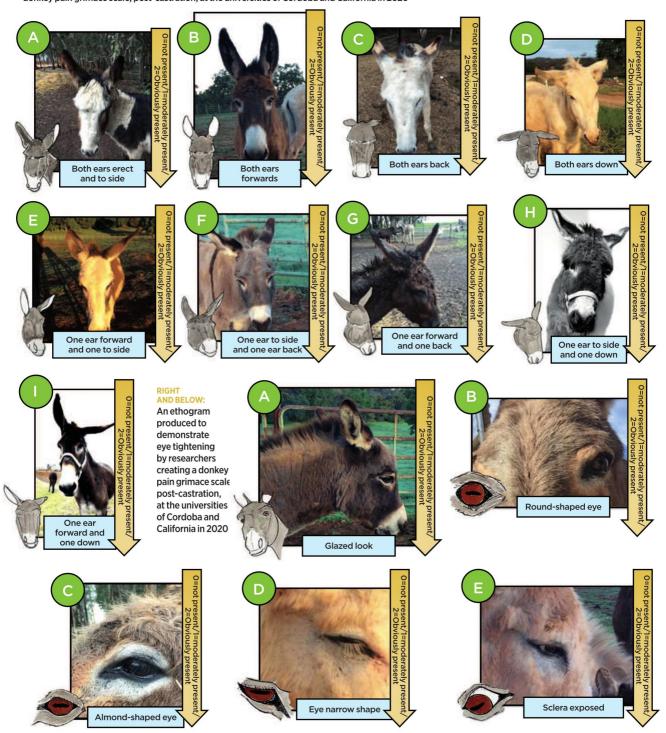
A dull donkey is classed as a veterinary emergency because, sadly, by the time the signs of severe illness are obvious it can be too late.

BELOW: An ethogram produced to compare the absence and presence of muzzle and nostril tension by researchers creating a donkey pain grimace scale, post-castration, at the universities of Cordoba and California in 2020

BELOW: An ethogram produced to compare normal and abnormal body stance associated with pain (post-castration) by researchers at the universities of Cordoba and California in 2020



BELOW: This ethogram was produced to demonstrate ear positions by researchers creating a donkey pain grimace scale, post-castration, at the universities of Cordoba and California in 2020



ACTION ON EJIAO

The Chinese appetite for ejiao, a traditional supplement derived from donkey hides claimed to cure anything from skin problems to anaemia (and now even coronavirus), is decimating donkey populations across

Africa. Farmed donkey numbers

have halved in China over the last 20 years, creating a trade in stolen donkeys that is reaping havoc in poor communities which can't afford to replace their working animals.

The cost of a donkey has increased tenfold in countries

such as Egypt (from £17 to £170), aside from the suffering (and anthrax risk) of unregulated, brutal slaughter in the open air.

The Brooke charity is running an online petition to pressurise the East Africa trade bloc to ban the practice (www.thebrooke. org/news/new-petition-callsban-trade-donkey-skins-acrosseast-africa) and, thanks to the efforts of sister organisation, Brooke USA, the American government is considering a bill to prohibit the sale of ejiao on Amazon there.

To try to improve on the poor outcomes caused by late clinical diagnosis, teams of researchers have been working on two separate studies to classify the subtle facial signs of donkeys in pain (one at Utrecht University in the Netherlands and the other at the University of Cordoba in Spain with the University of California). The resultant **Donkey Grimace Scales** score levels of pain based on facial indicators such as orbital tightening and ear positioning and are designed to be used with overall body language. What potentially could be a game-changer is the incorporation of the Utrecht research into a new free Dutch smartphone app (available as an English translation) called the EPWA, which it is hoped will help owners to spot and monitor any suspicious signs in donkeys (plus horses), and realise when it is time to call out a vet.

DOING THE GROUNDWORK

Like doting parents of a captivating child, hardcore fans love to promote the notion that donkeys have superior intelligence to horses, but there is no concrete evidence to support this. Scant research work goes into donkeys compared to horses, possibly because there aren't the same lucrative market forces driving interest. Out of the total population of 847,000 equines in the UK estimated by the British Equestrian Trade Association in 2019, there are only around 27,500 donkeys.

What no one seems to dispute is that donkey-horse

hybrids – which are popular in the US – usually require experienced, expert training because of the combination of traits from both species. These mules and hinnies, usually sterile because of the effect on the genetics (they have 63 chromosomes), are used for trail riding, draft work and in equestrian events competing against horses. American Mammoth Jackstock donkeys, which are commonly used for mule-breeding (as was the French Poitou) can reach up to 17hh.

The British Standard donkey, the predominant breed in Britain, reaches only 12hh, and doesn't have the physique to support riders of more than 8 stone, advocates The Donkey Sanctuary. But anyone assuming that lack of riding opportunity means that donkeys don't require any effort is in for a surprise. Donkeys are quick learners, and need consistent handling and training, as well as mental stimulation, to prevent avoidable health and behavioural problems through their long lives (up to 40 years).

"In some ways, I think they are harder to manage than horses to an optimal level," says The Donkey Sanctuary's Georgia McCormick. "Some people have these expectations that they're a nice, easy pet to care for, but they do have specific needs, and, if you can't meet them, you have the potential to run into problems. If you're not handling them properly, you can end up with a donkey in a field that you can't catch and you can't get a farrier anywhere near."

In her role as senior welfare adviser for the

PHYSICAL ASSETS

With relatively little scientific research undertaken on donkeys as a separate species, it is usually assumed that senses such as vision are in the same ballpark as for horses. That means narrow binocular vision (approximately 55 degrees) in front, and wide, panoramic monocular vision (through horizontal pupils) around to the blind spot at the tail.

Those generous ears not only funnel and improve the clarity of sound (heard at a higher frequency than by humans), but have a secondary cooling function because of heat dissipation. The sound of braying is reckoned to travel 2-3 miles to enable donkeys to hear each other and possibly more in still, desert regions, or quiet country villages!

Like horses, donkeys are obligate nasal breathers, so they can pick up the scent of predators through their nostrils while carrying on eating. The olfactory organ is smaller and positioned lower down in the wider (when compared to a pony of equivalent size) skull, and use of the lip-curling flehmen response helps to transfer aromas for processing.

Their proficiency in scenting and digging for water is now being appreciated in inhospitable landscapes in the US, where feral donkeys are inadvertently increasing biodiversity by creating waterholes that can be used by other species. Having evolved in deserts, donkeys are notoriously tolerant of thirst and are able to rehydrate themselves very quickly without ill effects. Scientists believe that special physiological adaptations to water deprivation, coupled with an ability to survive on poor forage, are factors in why donkeys absorb and metabolise therapeutic drugs differently to horses.

northern regions, Georgia becomes involved in the charity's training programme for potential 'guardians' of rehabilitated rescue donkeys, as well as preparing 'shaping' plans for those independent owners who come to the charity for help if they run into behavioural difficulties (pain and illness causes being eliminated first).

As a donkey owner herself, Georgia falls into the popular category of the ex-horsey person who gives up riding as part of having children, but still needs "something equiney" in their life. "I like to do the groundwork," she says. "And the mucking out, the grooming and taking them for a walk. For me, they fit into my family lifestyle a bit

better. They are such great animals to know. They really are incredibly rewarding."

FURTHER INFORMATION

- To apply to become a donkey 'guardian' (there is a six-month waiting list), general information, behavioural help and advice (including specialist, peer-to-peer veterinary consulting), visit www. thedonkeysanctuary.org.uk
- For a free downloadable pain and welfare app for smartphones, visit www.epwa.nl
- For help and advice on breeding, showing and buying donkeys, visit www. donkeybreedsociety.co.uk
- For listings of donkey vets, farriers and dentists in UK and Ireland, visit: www.donkeywise.org



All about Mandie Rickaby

Mandie Rickaby spent 14 years rearing her own Aberdeen Angus suckler herd on her 30-acre smallholding in Kent, where she also kept sheep, horses and ponies. In a previous life, she worked as a polo groom in the US, as a jillaroo on an outback cattle station outside Alice Springs (mustering semi-feral Brahman-Charolais crosses) and as a stockhand on sheep farms in Western Australia. She has been a journalist for more than 35 years.