Appendix A. Summary characteristics of included studies (*n*=28).

First author, year, publication type, and country	Study aim	Focal species	Focal impact on animals	Impact type and context	Primary outcomes and recommendations
Goudie (2006), research article, descriptive, Canada	Explored behaviours involved in responses to noise, behavioural response related to dose of aircraft noise, and response by aircraft type.	Fowl *(ducks)*	Behavioural disturbance in a natural setting. *(Noise)*	Low flying military aircraft noise in a natural landscape context. *(Greenfield)*	Ducks responded to low flying aircraft [≥100 dB_A] by increasing alert behaviour and becoming inactive or immobile. The alert response to noise generated from low-level military jets increased in a dose response manner (p. 32).
Garcia (2008), conference paper, experimental, Brazil	"[To] evaluate influence of two different vibration levels on rectal temperature and weight loss, in [simulated transport]" (p. 646).	Fowl *(chickens)*	Vibration impacts on body temperature and weight loss as stress indicators. *(Vibration)*	Measurement of aversive vertical vibrations experienced by chickens during transport (1Hz to 10Hz). *(Experimental)*	Vibration did not affect rectal temperature or weight loss (stress proxies) significantly. It could not be affirmed in this experiment whether chickens were stressed.
Doggett (2018), research article, review, United States	Not explicitly defined.	Rodent *(mice)*	Vibrations referred to building impacting animal welfare. *(Vibration)*	"Vibrations can originate from the exterior of the building via ground-borne transmission or from concrete pavements that bridge the foundation of the building to surrounding streets. Through the foundation, these vibrations travel up columns and load bearing walls to upper levels where damping may not sufficiently mitigate slab vibrations" (p. 6). *(Not specified)*	Data should be recorded over time for both vibration and noise effects, to more accurately correlate this with animal behaviours that are susceptible to disruption (e.g., reproduction).
Hanson (2008), conference paper, review, United States	To review impact of a new rail alignment through rural and wilderness areas, with preliminary criteria for the effects of high-speed train noise on domestic livestock (p. 26).	Livestock *(cows, turkeys, pigs, sheep)*	Noise effects on various welfare and productivity measures for domestic livestock. *(Noise)*	High-speed rail and low flying aircraft noise. Review findings draw on multiple studies to arrive at guidelines for exposure thresholds for rail noise. *(Brownfield and greenfield)*	Many reported effects on productivity, including weight gain, mortality, and meat quality, are potentially related to a sound exposure threshold of 100dB_A. Different effects occur at different noise ranges in domestic mammals: dairy cows 97 dB to 110 dB (changed blood composition), 105 dB (reduced milk production; pigs 93 dB -123dB

Appendix A. Summary characteristics of included studies (*n*=28).

First author, year, publication type, and country	Study aim	Focal species	Focal impact on animals	Impact type and context	Primary outcomes and recommendations
					(hormonal changes), 120 – 135 dB (increased heart rate); sheep 90 dB (decreased thyroid activity), 100 dB (increased heart rate and respiration), 100 dB (increased lambs per ewe); chickens 115 dB (interrupted brooding); turkeys 100 dB (panic crowding). Studies reported dB_A SEL (L_{Amax}), and review author recommended SEL 100 dB_A (L_{Amax}) as the threshold (see p. 29).
Hanson (2012), technical report, descriptive, United States	To provide guidance on conducting noise and vibration impact assessments for National Environmental Policy Act [USA] studies, to best meet noise and vibration regulatory requirements (p. 1-1).	Livestock *(general)*; fowl *(general)*	Research on animal noise exposure was used to identify a noise threshold to minimise harm to domestic mammals and birds. *(Noise)*	"Many studies report levels in the vicinity of 100 dB_A as associated with an observable effect…" (p. A20) Until there is clearer available evidence for developing thresholds, the report suggests that SEL 100 dB_A (L_{Amax}) is an appropriate threshold for high-speed rail noise disturbance. *(Not specified)*	Use the interim criterion of 100 dB_A as the maximum amount of exposure for domestic livestock animals, until more consistent research becomes available (p. A20). This noise exposure estimate is for both mammals and poultry birds. "Panic flight may result in injuries to animals in rough terrain or in predation of unprotected eggs of birds" (p. 3-2).
Archer (2014), technical report, review, Australia	To assess potential impacts of noise relative to existing noise limit criteria, including impacts on mammals in a mining context. (p. 3)	Mammals *(general)*; Birds *(general)*	Impacts of mining operation noise, including mining vehicles that produce rail equivalent noise, on local mammal and bird populations. *(Noise)*	Mining equipment will produce noise in excess of 100 dB_A (p. 13), for example, CAT mining hauler trucks (110 dB_A), CAT backhoe (107 dB_A) [slightly higher than average rail, at ~80 dB_A]. Rail noise may also exceed the recommended maximum noise level for industrial premises when in use (75 dB_A) (Table 8, p., 19). Noise above 90 dB_A is likely to be aversive to mammals and associated with aversive behaviour (retreat, freezing, startling). Sound levels below about 90 dB_A usually cause much less aversive behaviour. Episodic noise can impact	There are no uniform thresholds for species' tolerance. Birds can respond to noise disturbance with alert (turn to source), alarm (focus, and intent to flee), flight (fleeing, and disturbance of feeding), and avoidance (p. 28). Recommended an occasional disturbance criterion of 50 dB_A, and frequent noise criterion of 65 dB_A, for minimising mammal impacts (p. 38).

Appendix A. Summary characteristics of included studies (*n*=28).

First author, year, publication type, and country	Study aim	Focal species	Focal impact on animals	Impact type and context	Primary outcomes and recommendations
				birds' behaviour at 60 – 80 dB_A (nesting/roosting), and over 80 dB_A (nesting/roosting/feeding) (p. 29) *(Brownfield)*	
Haas (2015), technical report, review, United States	"[To] systematically evaluate the known conflicts and challenges posed by the potential proximity of [high speed] trains and known areas of equine and equestrian land use" (p. 2).	Equines *(horses)*	Effects of high-speed rail noise on nearby land containing horses. *(Noise)*	Noise source is high speed trains of European and Asian trainset that produce sound from SEL 83 - 91 dB_A (L_{Amax}) (p. 9). *(Greenfield)*	Animals startle at < 50 feet from rail tracks, as loud noises frighten and prompt a 'fight/flight' response. This may occur with horses approached by a train, though horses can habituate to loud noises from 65 - 90dB_A (loud, live music) (p. 9 - 10). As noise level of 100 SEL dB_A (L_{Amax}) have the potential to harm horses, levels must be screened for possible conflicts. As there is no consensus on startle effects in horses from rail noise, for thresholds. (p. 11), follow the interim guidelines of SEL 100 dB_A, and ensure noise sources are mapped for new rail lines.
Owen (2017), technical report, review, United Kingdom	This study considers operational railway noise effects on livestock, focusing on sound level, reproduction and milk production, and noise habituation.	Livestock *(cows, sheep, pigs)*	Effects of high-speed rail noise on livestock housed in nearby farming shed structures. *(Noise)*	Noise source is proposed high speed train development in United Kingdom (HS2). *(Greenfield)*	Cow milk production is not affected at maximum noise levels up to 99 dB_A (p. 8). Livestock can habituate reasonably quickly (10 - 30 presentations) to loud sounds at SEL 90 - 120 dB_A, and are unlikely to be affected by [high-speed] rail vibration (p. 8). The authors suggest that this may occur over a short time (< 1 day for very young animals). Despite this, separate research addressed by the author suggests that loud noises produce startling and orienting responses in livestock (p. 10), and noise-induced stress is associated in cattle with heightened stress hormone response (e.g., noradrenaline, cortisol),

Appendix A. Summary characteristics of included studies (*n*=28).

First author, year, publication type, and country	Study aim	Focal species	Focal impact on animals	Impact type and context	Primary outcomes and recommendations
					and impairment of milk production via prolactin effects. Research in pigs suggests some increased aggression in response to mechanical noise exposure (p. 15).
Aradom (2012), article thesis, experimental, Sweden	To examine vibration and frequency level effects on typical cattle transport vehicle and on livestock animals.	Livestock *(cows, pigs)*	Vibration transmitted to animals through transport vehicle body. *(Vibration)*	Noise source is from domestic animal transport in typical cattle transport vehicle. Included in the current review as an extreme vibration scenario, relative to typical freight rail vibration effects. *(Experimental)*	Vibration induces fear, nausea, distress, and fatigue in livestock (p. 21). Vibration levels experienced by animals during transport may be minimised by perpendicular positioning to source of vibration, which may aid in reducing vibration related stress and subsequent injury. (p. 42). Animal positioning relative to vibration sources can influence welfare. Note, this vibration is typically greater than that experienced by livestock at a distance from a rail freight source.
McAdie (1993), research article, experimental, New Zealand	"To quantify the effect of type and intensity of sound using measures of bias in hen choice behaviour" (p. 225).	Fowl *(hens)*	Avoidance behaviour in response to diesel train noise. *(Noise)*	Recorded diesel train noise at 90dB 4200 Hz (10 meters) was played to hens. *(Experimental)*	Hens were moderately biased to move away from the train noise source, but less so than from recorded noise of other poultry. The sound of other hens was associated with larger biases than equivalent volume train noise (p. 235). Hens prefer a noise-reduced environment. Noises over the range of a train can adversely affect hen welfare (> 80 dB_A).
Abeysinghe (2001), research article, experimental, United Kingdom	To examine broiler chicken aversion to concurrently experienced temperature and vertical vibration stressors (p. 178).	Fowl *(chickens)*	Avoidance behaviour in response to combined vibration and heat stressor.	Chicken were exposed to vertical vibration (2 Hz) and heated air (40 ºC). *(Experimental)*	Vibration is likely to be fear-eliciting (p. 176). Chickens avoided combined vibration (2 Hz vertical) and thermal (air) stressors. Chickens found combined vertical vibration and hot air

Appendix A. Summary characteristics of included studies (*n*=28).

First author, year, publication type, and country	**Study aim**	**Focal species**	**Focal impact on animals**	**Impact type and context**	**Primary outcomes and recommendations**
			(Vibration)		aversive, and this impaired food seeking behaviour.
Goudie (2004), research article, descriptive, Canada	To assess how ducks respond to low-flying military aircraft, and the relationship between behavioural response and the intensity of noise levels.	Fowl *(ducks)*	Behavioural disturbance in a natural setting due to aircraft pass-by noise. *(Noise)*	Sudden onset high amplitude, low flying military aircraft noise in a natural greenfield context (91.4 dB_A, to peak 129 dB_A) *(Greenfield)*	Aircraft noise increased startle responses and general agitation in ducks, leading to panic behaviour (i.e. diving). There was a dose response relationship between panic between alertness and aircraft noise. A threshold of 80 dB_A is recommended to minimise negative behavioural and welfare effects.
Armas (2004), research article, review, United States	"To analyse the harmful effects of aircraft noise on various animal species, from noise originating from aircraft flying at supersonic speeds and at low altitudes" (p. 368).	Livestock *(cows)*	Behavioural disturbance and production impairment following aviation noise stressor. *(Noise)*	"Domesticated and wild animals both display behavioral and physiological responses to [aviation noise] potentially harmful to the animal's health" (p. 388). Stampeding, flight, aggression, stress hormone release, impaired calving and fowl growth can occur after aviation sound exposure (100 – 110 dB). *(Greenfield)*	To minimise harmful effects of noise on domesticated animals, the author recommended creating formal conflict resolution procedures (i.e. negotiation) between affected groups and noise producers, additional to environmental guideline adherence, to more effectively minimise noise impacts and support the rights of parties involved.
Arnold (2008), research article, experimental, Australia	To assess if milking facility noise is fear-provoking for dairy heifers, and whether they will learn to avoid such noise.	Livestock *(cows)*	Fear of recorded machinery, animal (cow), human, stall gate hydraulics, and radio music [samples] in 2min segments (85 dB). *(Noise)*	"Heifers developed a preference to avoid noise recorded from a commercial milking … after only two to three exposures to noise." (p. 209) *(Greenfield)*	"Cows can readily learn to avoid the location of an aversive stimulus. In addition, exposure to noise increased avoidance behaviour" (p. 209).
Haverbeke (2008), research article, experimental, Belgium	"To analyse the cortisol and behavioral responses of military working dogs after a repeated	Canines *(dogs)*	Auditory stimulus (110 – 120 dB) was an air blast (for 3 seconds) at	After 3 weeks, exposure to [auditory stressor] no longer resulted in increased plasma cortisol levels. [Later] there	Working dogs are likely able to cope with exposure to noise stressors (air blast) at high levels over very short periods (3 seconds) (p. 64).

Appendix A. Summary characteristics of included studies (*n*=28).

First author, year, publication type, and country	**Study aim**	**Focal species**	**Focal impact on animals**	**Impact type and context**	**Primary outcomes and recommendations**
	environmental challenge [air horn] to confirm whether they are chronically stressed or not" (p. 60).		a distance of 1 meter from the dog, and stress assessed via blood plasma cortisol level. *(Noise)*	[was] complete recovery from the challenges in hormonal levels (p. 64). *(Experimental)*	
Deylam (2011), research article, experimental, Iran	"To test the effects of continuous high-intensity noise on the learning (i.e., acquisition, retention, and transfer) of spatial memory tasks depending on the intensity of noise during [behavioural] training" (p. 310).	Rodents *(rats)*	Recorded noise from a football stadium was used as a low (52 – 54 dB_A), moderate (64 – 68 dB_A), and high (86 – 90 dB_A) intensity stressor to disrupt spatial task learning (p. 310). Noises were played for ~90 seconds, eight exposures per day for three days. *(Noise)*	“High-intensity noise appeared to damage the learning process" (p. 309), though moderate intensity exposure may increase resilience to effects of high intensity noise. *(Experimental)*	Continuous exposure to noise at 86 – 90 dB_A over multiple occasions may impair spatial learning in rats, though more evidence is required.
Di (2013a), research article, experimental, China	Rats’ synaptic functioning in the hippocampus, temporal lobe and amygdala were examined for impairment by high-speed railway noise of learning and memory function. (p. 94).	Rodents *(rats)*	Recorded high-speed railway noise from the Beijing-Tianjin Inter-City High-Speed Railway (70 dB_A). *(Noise)*	Rats were exposed to recorded rail noise daily for 90 days. *(Experimental)*	Rail noise impaired synaptic transmission efficiency, and may impair learning and memory. High-speed railway noise may lead to dysfunction of learning and memory. *Note:* rats’ hearing range is similar to that of humans (p. 98).

Appendix A. Summary characteristics of included studies (*n*=28).

First author, year, publication type, and country	Study aim	Focal species	Focal impact on animals	Impact type and context	Primary outcomes and recommendations
Atigui (2014), research article, descriptive, Tunisia	"[Examine] effects of changing the machine milking routine… [including a noise stressor] on the occurrence of milk ejection, milk flow kinetic characteristics and milking-related behaviour of dairy camels" (p. 495).	Camels *(dromedary)*	Startling noise, metal clanging at 1 metre, and of unspecified volume. *(Noise)*	Camels were exposed to a noise stressor during use of a milking device. *(Brownfield/arid)*	In the presence of noise during milking, milk ejection was significantly delayed (1.5 min), increasing risk of mastitis, and reduced milk yield (p. 500). "Milking routine in dairy camels should emphasise… a calm environment" (p. 502). This may have applications with comparable livestock species.
Di (2013b), research article, experimental, China	"[To] explore stress responses caused by high-speed rail noise [via] behavioural [avoidance] and physiological [plasma monoamines concentration] criteria..." (p. 218).	Rodents *(mice)*	Recorded and replayed high-speed rail noise (70 dB_A), with background noise of 35 dB_A to mimic train schedule. *(Noise)*	Mice were exposed to noise from a simulated high-speed rail schedule, and had avoidant behaviour and stress indicators (norepinephrine, dopamine, and serotonin) measured. *(Experimental)*	After 40 days exposure to periodic train noise stress at 70 dB_A, mice had significantly higher plasma dopamine concentrations (p. 219). "Results… supported the hypothesis that long-term high-speed rail noise exposure will induce anxiety-like reactions in mice" (p. 221). Noise emission from high-speed rail should not exceed a 70 dB_A average over a 24-hour period (L_{dn}). (p. 222).
Grandin (1989), research article, review, United States	To review practical livestock handling research and procedures that address factors which affect stress levels in livestock (p. 1).	Livestock *(cows, pigs, sheep)*	A range of potential environmental stressors are described. *(Noise, visual)*	Unexpected, loud, or novel noises can be highly stressful to livestock, elevating stress hormones, and can limit weight gain (sheep, > 100 dB_A). Moving objects can also disrupt handling and cause balking and refusal to move (p. 2). *(Greenfield and facilities)*	Habituation to a background 'white' noise, can reduce adverse reactions in cows and pigs, and "providing additional environmental stimulation will reduce excitability." (p. 5). Principles of behavioural design can be considered to promote animal welfare.
Randall (1997), research article, experimental, United Kingdom	To "provide frequency weightings for motion in the vertical and horizontal translational	Fowl *(chickens)*	Avoidant behaviour and pecking for food were assessed on	Chickens, conditioned to peck for food on a platform, were exposed to horizontal vibration (~0.5Hz to 10Hz), with masking white noise played at 70	Vertical vibration motion is more aversive to chickens than horizontal motion, particularly in excess of 1Hz, and higher frequencies are less aversive

Appendix A. Summary characteristics of included studies (*n*=28).

First author, year, publication type, and country	Study aim	Focal species	Focal impact on animals	Impact type and context	Primary outcomes and recommendations
	axes appropriate to standing broiler chickens during transport and to indicate likely aversive reactions of chickens" (p. 389).		exposure to standing vibration. *(Vibration)*	dB_A. Food seeking decreased significantly, indicating aversion. *(Facilities)*	than lower frequencies. Aversive effects are greater when combined with acceleration (e.g., transport).
Grandin (1998), research article, review, United States	To review stressors that can adversely impact cattle welfare in a livestock production setting.	Livestock *(cows)*	Effects of noise and other stressors on cattle are reviewed. *(Noise)*	Cattle have very sensitive hearing, especially at high frequencies, and are more sensitive than humans to high-pitched noise (p. 327). *(Facilities)*	[Facilities] should... avoid clanging and banging [noises].... [and] avoid high-pitched noise around 6000 to 8000Hz, because a cow's hearing is the most sensitive at these frequencies… [and] may hurt the animal's ears. (p. 327).
Hardy (2004), technical report, descriptive, United Kingdom	To investigate the acoustic output of noise from warning horns, and environmental impact, in response to increasing numbers of complaints.	Environment *(broad)*	Propagation of warning horn noise in environment immediately near train site. *(Noise)*	Typical warning horns produced noise at a maximum of approximately $103dB_A$ (p. 50).	Report suggests that across various rail classes, the standard warning horn noise levels should be approximately 94 – 96 dB at 100 metres distance (p. 51), and that higher than expected noise levels can be radiated from the side of the train to the environment (p. 52). The authors recommended considering changing warning horn types or lowering pressure to existing horns to meet environmental guidelines.
Campo (2005), research article, experimental, Spain	"To define the effect of… [noise] on heterophil to lymphocyte ratio [stress indicators], and on tonic immobility duration [fear reaction], in [hens]" (p. 77).	Fowl (chickens)	Effects of noise stimuli on fear and stress level in domestic chickens. *(Noise)*	"Spanish breeds of chickens [were] exposed to specific noise stimuli of 65 dB [L_{eq}] (background chicken vocalizations and fans, control) or 90 dB [L_{eq}] (background noises plus truck, train, and aircraft noises) for 60 min, between 8.00 and 9.00 once" (p. 75). *(Experimental)*	"Hens exposed to 90dB [L_{eq}] noise were more stressed and fearful than control hens, as indicated by heterophil to lymphocyte ratio [physiological stress] and the tonic immobility [freezing behaviour] duration, respectively" (p. 75). Birds in the noise treatment groups [piled] up in the corners far from the cassette player or [lay] flat on the floor" (p. 82).

Appendix A. Summary characteristics of included studies (*n*=28).

First author, year, publication type, and country	Study aim	Focal species	Focal impact on animals	Impact type and context	Primary outcomes and recommendations
Dooling (2004), conference paper, experimental, United States	To examine harm effects of intense noise exposure on the avian auditory system.	Fowl *(Japanese quail)*	Effects of tone volume on avian hearing loss. *(Noise)*	Birds were exposed to an intense pure tone 112dB (2.86kHz) for 12 hours in a controlled laboratory environment. *(Experimental)*	Quail lost hearing at 70 dB and had not fully recovered hearing a year after exposure. [Birds] showed an initial hearing loss at about 50 dB (p. 30). Although this study experimentally demonstrates susceptibility of avian species to harm with aftereffects at relatively low noise levels, parallels to freight rail type noise effects should be made with caution.
Mestre (2008), book, review, United States	To provide a summary of the research literature for aviation noise effects on wildlife and domestic animals.	Livestock *(general); multiple species.*	Effects of aviation or similar noise on domestic animals. *(Noise)*	Studies were reviewed for noise effects at a range of exposure levels, in agricultural and natural settings. *Note:* findings are largely from Manci and colleagues (Manci et al., 1988). *(Greenfield)*	"[Noise] effects are highly species-dependent..." (p. 72). Dairy cow (tractor engine 97 dB, increased glucose and leukocyte counts, decreased haemoglobin and thyroxin). Pigs (general noise, 93-120 dB, adrenal and hormonal stress response). Sheep (white noise, 90 - 100 dB, increased heart rate and thyroid activity). Chickens (aircraft and general noise >100 dB, increased stress, impaired brooding and egg production). Geese (aircraft noise, startling/flight response) (pp. 73-75). "There are no generalized [noise] dose-response curves that cover all or most species." (p. 72).
Brozoski (2019), research article, experimental, United States	"To examine the interaction between tinnitus and auditory attention in an animal model. Specifically, how vigilant and selective attention are impacted in	Rodents *(rats)*	Eight randomly selected rats were unilaterally exposed once to band-limited noise for 1h (peak 120 dB SPL)	"Animals with behavioral evidence of tinnitus show hypervigilance to sounds resembling their tinnitus, but not to sounds that differ from their tinnitus …. [and] tinnitus places a demand on attentional resources and thereby negatively impacts selective attention" (p. 209-210).	Noise-exposure induced tinnitus (120 dB) negatively impacted animals' selective attention [voluntary focus] but did not affect vigilant attention (p. 211). This indicates impairment in ability to detect brief sound events in the context of other sounds, compared to non-affected animals.

Appendix A. Summary characteristics of included studies (*n*=28).

First author, year, publication type, and country	**Study aim**	**Focal species**	**Focal impact on animals**	**Impact type and context**	**Primary outcomes and recommendations**
	a sound-exposure model of tinnitus." (p. 201).		centred at 16 kHz. (p. 202). *(Noise)*	*(Experimental)*	
Brouček (2014), research article, review, Slovakia	"To determine effects of noise on animals, especially farming animals, and compare the results of previous studies on noise assessment in particular housing situations to demonstrate the impact and significance of the noise problem for design of housing, and management practices" (p. 111).	Livestock *(general)*	The auditory range and typical sound for domestic livestock housing/transport are examined for effects of noise exposure on animals. *(Noise)*	Susceptibility to noise is species dependent (p. 112). Cows (90-100 dB, discomfort; 110 dB, physical damage); dairy breeds more sensitive to noise than beef breeds (p. 112). Pigs (55 Hz and 40 kHz, auditory range; 500 Hz to 16 kHz, sensitive range). Sheep can adapt to continuous noise at around 60 - 90 dB (e.g., transport vehicles) (p. 113). Sudden loud noises can produce hysteria, aggression, or panic in chickens (p. 114). Background noise in cattle/pig housing can range from 60 - 90 dB (p. 113). Harmful noise levels can be associated with feeding (104 - 115 dB), mating (94 – 115 dB), cleaning (105 dB), and feed mixing (88 - 93 dB) (p. 114). *(Greenfield and experimental)*	Although livestock animals can exhibit adaptation after repeated exposure to noise, careful planning should be conducted to avoid stressful environmental sounds for animals (p. 119).

Abeyesinghe, S. M., Nicol, C. J., Wathes, C. M., & Randall, J. M. (2001). Development of a raceway method to assess aversion of domestic fowl to concurrent stressors. *Behavioural Processes*, *56*(3), 175-194. https://doi.org/https://doi.org/10.1016/S0376-6357(01)00193-0

Aradom, S. (2012). *Animal Transport and Welfare with special emphasis on Transport Time and Vibration including Logistics Chain and Abattoir operations*, Swedish University of Agricultural Sciences].

Archer, N. (2014). *Noise and vibration impact assessment* (No. 630.10155.00300-R3). S. C. A. P. Ltd.

Armas, N. M. (2004). Military aviation noise and its effects on domesticated and wild animals. *Penn State Environmental Law Review*, *12*(2), 367-388.
Arnold, N. A., Ng, K. T., Jongman, E. C., & Hemsworth, P. H. (2008). Avoidance of tape-recorded milking facility noise by dairy heifers in a Y maze choice task. *Applied Animal Behaviour Science*, *109*(2), 201-210. https://doi.org/https://doi.org/10.1016/j.applanim.2007.02.002
Atigui, M., Marnet, P.-G., Ayeb, N., Khorchani, T., & Hammadi, M. (2014). Effect of changes in milking routine on milking related behaviour and milk removal in Tunisian dairy dromedary camels. *Journal of Dairy Research*, *81*(4), 494-503. https://doi.org/10.1017/S002202991400051X
Brito Garcia, D., José Oliveira Silva, I., Antônio Delfino Barbosa Filho, J., Márcio Correa Vieira, F., & Tadeu dos Santos Dias, C. (2008). Evaluation of the Effect of Vibration in Simulated Condition of Transport of Broiler Chickens. (Ed.),^(Eds.). Livestock Environment VIII, 31 August – 4 September 2008, Iguassu Falls, Brazil, St. Joseph, MI.
Brouček, J. (2014). Effect of noise on performance, stress, and behaviour of animals. *Slovak Journal of Animal Science*, *47*(2), 111-123.
Brozoski, T., Wisner, K., Randall, M., & Caspary, D. (2019). Chronic sound-induced tinnitus and auditory attention in animals. *Neuroscience*, *407*, 200-212. https://doi.org/10.1016/j.neuroscience.2018.10.013
Campo, J. L., Gil, M. G., & Dávila, S. G. (2005). Effects of specific noise and music stimuli on stress and fear levels of laying hens of several breeds. *Applied Animal Behaviour Science*, *91*(1), 75-84. https://doi.org/https://doi.org/10.1016/j.applanim.2004.08.028
Deylam, M. J., Gheraat, M. A., Naghdi, N., & Abarghani, L. E. (2011). Impairment of spatial performance by continuous intensive noise: a behavioral view. *Psychology & Neuroscience*, *4*, 309-315.
Di, G., & He, L. (2013). Behavioral and plasma monoamine responses to high-speed railway noise stress in mice. *Noise & Health*, *15*(65), 217-233.
Di, G., & Zheng, Y. (2013). Effects of high-speed railway noise on the synaptic ultrastructure and phosphorylated-CaMKII expression in the central nervous system of SD rats. *Environmental Toxicology and Pharmacology*, *35*(1), 93-99. https://doi.org/https://doi.org/10.1016/j.etap.2012.11.012
Doggett, F., & San Souci, S. (2018). Animal stress due to noise and vibration. *NOISE Theory and Practice*, *4*(3), 5-9.
Dooling, R. J. (2004). *Estimating effects of highway noise on the avian auditory system*. 2005 International Conference on Ecology and Transportation (ICOET 2005), San Diego, USA.
Goudie, R. I. (2006). Multivariate behavioural response of harlequin ducks to aircraft disturbance in Labrador. *Environmental Conservation*, *33*(1), 28-35. https://doi.org/10.1017/S0376892906002724
Goudie, R. I., & Jones, I. L. (2004). Dose-response relationships of harlequin duck behaviour to noise from low-level military jet over-flights in central Labrador. *Environmental Conservation*, *31*(4), 289-298. https://doi.org/10.1017/S0376892904001651
Grandin, T. (1989). Behavioral principles of livestock handling. *The Professional Animal Scientist*, *5*(2), 1-11. https://doi.org/https://doi.org/10.15232/S1080-7446(15)32304-4

Grandin, T. (1998). Handling methods and facilities to reduce stress on cattle. *Veterinary Clinics of North America: Food Animal Practice*, *14*(2), 325-341. https://doi.org/https://doi.org/10.1016/S0749-0720(15)30257-7
Haas, P., & Scrivener, A. (2015). *High-speed rail and equine issues* (No. CA-MTI-15-1427). M. T. Institute
Hanson, C. E. (2008). High-speed train noise effects on wildlife and domestic livestock. In B. Schulte-Werning, D. Thompson, P.-E. Gautier, C. Hanson, B. Hemsworth, J. Nelson, T. Maeda, & P. d. Vos (Eds.), *Noise and vibration mitigation for rail transportation systems* (pp. 26-32). Springer-Verlag.
Hanson, C. E., Ross, J. C., & Towers, D. A. (2012). *High-speed ground transportation noise and vibration impact assessment*. US Department of Transportation
Hardy, A. E. J. (2004). *Audibility of warning horns: Final report* (No. AEATR-PC&E-2004-002). RSSB
Haverbeke, A., Diederich, C., Depiereux, E., & Giffroy, J. M. (2008). Cortisol and behavioral responses of working dogs to environmental challenges. *Physiology & Behavior*, *93*(1), 59-67. https://doi.org/https://doi.org/10.1016/j.physbeh.2007.07.014
Manci, K. M., Gladwin, D. N., Villella, R., & Cavendish, M. (1988). *Effects of aircraft noise and sonic booms on domestic animals and wildlife: A literature synthesis* (No. NERC-88-29
McAdie, T. M., Foster, T. M., Temple, W., & Matthews, L. R. (1993). A method for measuring the aversiveness of sounds to domestic hens. *Applied Animal Behaviour Science*, *37*(3), 223-238. https://doi.org/https://doi.org/10.1016/0168-1591(93)90113-4
Mestre, V. (2008). *Effects of aircraft noise: Research update on selected topics*. Transportation Research Board.
Owen, D. (2017). *High speed 2 limited, phase one: Noise effects on livestock* (No. 236118-57/ R01- Issue 2). O. A. P. Ltd
Randall, J. M., Duggan, J. A., Alami, M. A., & White, R. P. (1997). Frequency weightings for the aversion of broiler chickens to horizontal and vertical vibration. *Journal of Agricultural Engineering Research*, *68*(4), 387-397. https://doi.org/https://doi.org/10.1006/jaer.1997.0218