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The effects of simulated transport on the behaviour of eastern blue tongued lizards (Tiliqua scincoides)

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Abstract

There is widespread transport of reptiles for the pet trade throughout the world and the 'dead on arrival' rates are high. The eastern blue tongued (EBT) lizard (Tiliqua scincoides; Order: Squamata; suborder: Lacertilia) is particularly popular due to its unusual blue tongue. Noise, vibration and thermal discomfort are known contributors to transport stress. We analysed the behaviour of EBT lizards (n = 9) when exposed to four of these stimuli in a changeover design. Lizards were exposed to Heat (35°C), Cold (15°C), high or low frequency noise or a Control treatment with no stimulus in a test chamber for a 5-s period. Heating blankets and ice packs were used to create the hot and cold temperature stimuli in the test chamber, and a speaker broadcast noise/vibration from a truck recording. The test chamber was connected to an escape chamber, accessible after exposure to the stimulus, and a small hiding chamber opposite the test chamber. Lizard behaviour was monitored during stimulus exposure and then for a further 15 min, after which each lizard was removed. Lizards exposed to Cold spent less time in the test chamber (330 vs 434 s) and more time inactive in the escape chamber (148 vs 40 s). They also spent longer walking towards the hiding chamber (18.0 vs 10.5 s) and walking in the hiding chamber away from the stimulus (3.6 vs 2.3 s). We conclude that cold temperatures are potentially noxious for lizards in a simulated transport environment as they reduce activity and increase escape attempts.

Keywords: animal welfare, eastern blue tongued lizard, noise, temperature, transport, wildlife trade