Development of a Deterring Sound for the Prevention of Deer-Train Collisions

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Deer-train collisions have become a serious problem in Japan. It was observed that deer went into a track from the gaps of fences or level crossings along the tracks. To keep deer away from tracks, we have invented a deterring sound and investigated its effectiveness. It consists of a deer alarm call and vocalization of a dog. It is observed that playing back the deterring sound against deer being around a track made them run away immediately. According to a survey on the frequency of the observation of deer, playing back of the deterring sound from a train resulted in a 45% reduction of the frequency with which deer were observed every 100 km of train operation. It has been revealed that the deterring sound will be an effective method for the prevention of deer-train collisions.