

Euthanasia of pest sturnids in nestboxes

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Nestboxes are commonly used as a research tool or for enhancing habitat quality for native hollow-dependent wildlife, but these objectives can be compromised if boxes are occupied by feral species, such as Common Myna *Sturnus tristis* and Common Starling *S. vulgaris*. Mynas and starlings exclude other potential nestbox users by actively harassing them, and by accumulating large volumes of nesting material that preclude occupation by other users. Here, we report a system using air-cooled carbon monoxide (CO) from a small 4-stroke petrol engine that enables *in situ* euthanasia of pest sturnids, eggs and chicks in nestboxes. The activity was carried out after dark, when sitting females were reluctant to fly, and was monitored via closed circuit television, to ensure that non-target species were not affected. Once the adults were euthanased, the entire contents of the box, including adults, chicks, eggs and nesting material, were dumped, via a hinged base (drop floor), thereby freeing up the box for other potential occupants. We report results from the 2009–2010 and 2010–2011 breeding seasons, during which a total of 48 adult female mynas was euthanased, along with 115 eggs (33 clutches) and 119 chicks (35 clutches). Time to immobility of adults ($n = 48$) was 96.4 ± 29.4 seconds (mean \pm s.d.). Young chicks were far more tolerant of carbon monoxide poisoning than adults and were euthanased, once the box contents had been removed, by placing them in a cloth bag and striking them against a hard object. No starlings were encountered in this trial, but earlier trials with carbon monoxide euthanasia indicate that the method would also work for this (and perhaps other) pest species.