

Does Restoration Create Ecological Traps by Increasing Brown-headed Cowbird Nest Parasitism?

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We reviewed the literature and synthesized data to evaluate whether restored riparian forests create ecological traps for riparian birds by attracting dense populations of Brown-headed Cowbirds in the Central Valley of California. Cowbirds lay their eggs in nests of other species, and this parasitism can reduce nest success.

An ecological trap is a low quality habitat that an animal prefers over a high quality habitat. Restored areas could be traps if birds are attracted to them only to find high levels of parasitism by cowbirds.

We concluded that the risk of restoration having created ecological traps through cowbird parasitism was low. Aside from small, already endangered populations,

there is little evidence that cowbirds are a serious threat to most bird populations. Further, there was no difference in cowbird density or parasitism rates between restored and remnant sites, and riparian bird populations have increased in response to restoration.

We recommend continuing riparian habitat restoration, while keeping in mind the recommended practices for minimizing cowbird impacts, such as limiting or consolidating nearby cowbird food sources like livestock and golf courses. Restoration ecologists should consider the potential for creating an ecological trap early and throughout the restoration design and implementation process, and include plans to monitor species responses to restoration.

Main Points

Most Central Valley riparian bird populations are not highly vulnerable to cowbird parasitism.

There were no differences in cowbird density or parasitism rates between restored and remnant riparian forests.

Riparian bird populations have responded positively to restoration.

The likelihood of restored riparian areas creating traps in the Central Valley is low and the benefits of restoration likely outweigh the risks.

Dybala, K.E., N.E. Seavy, M.D. Dettling, M. Gilbert, R. Melcer, Jr., & T. Gardali. 2014. [Does Restored Riparian Habitat Create Ecological Traps for Riparian Birds Through Increased Brown-headed Cowbird Nest Parasitism?](#) Ecological Restoration 32:239-248.

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