

Artificial Islands are not Forest Fragments

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Opinion

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Abstract

This opinion debate the difference between forest fragments and artificial islands. Many species can react differently to forest fragments and artificial islands. The knowledge about species movement help us to understand the effects of forest fragmentation on biodiversity changes.

Keywords: Forest patches; Rodents; Neotropical forests; Animal movement; Exotic species

Opinion

For many years ecologists naively believe that the balance of extinction and colonization of isolated forest fragments will behave as predicted solely by the island biogeography theory [1]. Ecological changes in artificial islands immersed in large reservoirs have been tempted compare to “real” forest fragments [2,3]. A previously study suggested that small artificial islands will lose all native small mammal species after 40 years of isolation [4]. Although the effects of forest fragmentation on native biodiversity are usually negative, ecologists should be aware that the ecological patterns of extinction and colonization found in artificial islands are far from what is happening in real forest fragments [5]. Forest fragments are immersed in a matrix that is not totally hostile to animal movement [7] and several native small mammals species do occur in human-age modified forest fragments [8], older that the ones reported by other studies [4]. In the Brazilian Atlantic forests, for instance, most of the fragments have exotic species (*Mus* and *Rattus*) or even species from open areas, but are far from being “empty forests” of native small mammals [5]. Artificial islands are

the exception rather than the rule to help us to understand the effects of forest fragmentation [9] on biodiversity changes [10].

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