

## THRUSHES: REASONS FOR THEIR USE IN STUDIES OF ANIMAL ECOLOGY

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## ABSTRACT

Considering the trials necessary to establish new ecological models and hypotheses, this review aims to propose the use of birds from the genus *Turdus* as an animal model in studies of animal ecology. Research with this group could be conducted in various locations worldwide, resulting in new methods of animal ecology, with systematic information obtained by several research groups throughout the area that species of this group occur. Among some attributes that ecological studies of these birds provide are: *i*) these birds abound in urban and forest environments; *ii*) some species of this group are sensitive to habitat disturbance; *iii*) some species have plasticity and resistance to environmental disturbances; *iv*) reasonable catchability; *v*) most birds of this group have territorial habits; *vi*) most species have migratory and partially migratory habits; and *vii*) the species have diverse feeding habits. In that sense, ecological studies about this group could even support conservation strategies for species under certain degrees of endangerment.

**Keywords:** ornithology; animal ecology; Turdidae.

## SABIÁS: MOTIVOS PARA UTILIZÁ-LOS EM ENSAIOS DE ECOLOGIA ANIMAL

## RESUMO

Frente à experimentação necessária para o estabelecimento de novos modelos e hipóteses ecológicas, este comentário teve por objetivo propor a utilização de aves do gênero *Turdus*, como animal modelo em estudos de ecologia animal. Pesquisas com este grupo podem ser conduzidas em diversos locais do planeta, obtendo novos métodos sobre ecologia animal, com informações sistematizadas obtidas por diversos grupos de pesquisadores ao longo da área de ocorrência de espécies do grupo. Entre alguns atributos que propiciam estudos ecológicos destas aves, pode-se destacar o fato de serem: *i*) aves abundantes em centros urbanos e ambientes florestais; *ii*) algumas espécies do grupo são sensíveis à perturbação de habitat; *iii*) outras possuem plasticidade e resistência a distúrbios ambientais; *iv*) razoável capturabilidade; *v*) grande parte das aves do grupo possuem hábitos territorialistas; *vi*) espécies com hábitos migratórios e parcialmente migratórios e *vii*) espécies com hábitos alimentares diversificados. Neste sentido, estudo ecológico do grupo, pode subsidiar até mesmo estratégias conservacionistas para espécies que estão sob algum grau de ameaça.

**Palavras-chave:** ornitologia; ecologia animal; Turdidae.

## COMMENT

The bird genus *Turdus* (thrushes), order Passeriformes (family Turdidae), has wide geographical distribution, occurring in Africa, Atlantic islands, Caribbean and Americas. It also occurs in Eurasia, including Japan and Philippines (1). In Brazil, there are three genera and 17 species of the family, namely: *Cichlopsis*

(1 sp), *Catharus* (3) and *Turdus* (13). The species of the genus *Catharus* observed in Brazil are seasonal visitors from the Northern hemisphere (2).

The genus *Turdus* is generally absent from the Australasia region, where there is only the "blackbird" *Turdus merula* (Linnaeus, 1758), introduced in Australia and New Zealand (3). Among the studies about *Turdus*, especially in

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the field of ecology, Fernández-Juricic & Telleria (4) who studied the effects of habitat on the recruitment of *T. merula* may be cited, while Faivre et al. (5) studied issues related to sexual selection in this species. Bright & Waas (6) tested the effects of plumage color on the reproductive success of the same species (op. cit.). More recently, Kilpatrick et al. (7) conducted studies about virology with species *Turdus migratorius* (Linnaeus, 1758), as well as vectors of zoonoses (8). Recently, Klicka et al. (9) and Voelker et al. (10) significantly contributed to the phylogeny of this group, stipulating a number close to 65 species for the genus.

In Brazil, specifically, reports about Turdidae generally occur in species lists, which have a more general nature. Studies about the genus *Turdus* are scarce and sporadic, which is an intriguing fact given that *Turdus rufiventris* Vieillot, 1818, has been named the national bird of Brazil (11), as well as being a widely distributed and abundant family in natural areas and urban centers. It could be therefore be prioritized for ecological model tests, or serve as a tool for ecological or conservationist studies. Thus, this review aims to encourage an increase in the number of research studies involving the family Turdidae, especially in the field of animal ecology, due to the advantages highlighted below: *i*) abundant number of birds in urban areas (12, 13); *ii*) several species being sensitive to habitat disturbance (3, 14, 15); *iii*) species with reasonable environmental plasticity (16, 17); *iv*) reasonable catchability [18]; *v*) territorialist behavior [19]; *vi*) species with migratory and partially migratory habits (20, 21); and *vii*)

species with diversified feeding habits, which enables their survival in different environments (1, 13).

It is observed that current Brazilian studies focusing exclusively on *Turdus* are directed at parasitology, as in Storni et al. (22) and Enout et al. (23), as well as frugivory, as in the cases of (24, 25 e 13) – the latter article being one of the most recent in Brazil, specifically involving the family Turdidae.

In that sense, ethological studies involving dietary strategies, competition, migratory patterns and territoriality, among other factors, could be possible using this group of birds, testing ecological theories that can bring excellent results, both for academic development and the strengthening of new theories and development of new hypotheses that can inform conservation strategies for species less tolerant to habitat disruption, allowing the development of research even in forest fragments located in urban areas.

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