

NOTES

New distribution record of the House Sparrow *Passer domesticus* in inland northwestern Madagascar

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The House Sparrow *Passer domesticus* is one of the most widespread birds on earth. Originally distributed in Eurasia, northwestern Africa, and the Middle East, it has been introduced into several areas of the world, such as the American continent and some neighboring islands, Australia, New Zealand, southern Africa and numerous oceanic islands, including Madagascar

(Anderson, 2006). The House Sparrow is highly successful in most parts of its introduced range. This is thought to be related to its historical adaptation to living near humans and ecological conditions (Summers-Smith, 1988; Martin & Fitzgerald, 2005).

The first records of the House Sparrow on Madagascar date from the mid-1980s from the east coast port of Toamasina (Langrand & Sinclair, 1994). After becoming established in the greater Toamasina area, over the past decade this species was recorded in the cities of Antsiranana, Mahajanga, and Antananarivo, all presumed to be independent colonization events (Safford & Hawkins, 2013; Goodman *et al.*, 2017). Monitoring its spread is of



Figure 1. House Sparrows *Passer domesticus* at Mahazoma village, about 10 km to the west of Maevatanana. (A) Adult male near a nest on a branch of *Adina macrocephala*, (B) adult male on a branch of *A. macrocephala*, and (C) adult female on the ground. (Photos by Lily-Arison Rene de Roland.)

particular importance because introduced populations often present major problems to humans and native wildlife (Invasive Species Specialist Group, 2021). Here, we report a significant range extension of this species in the northwest, specifically in the village of Mahazoma ($17^{\circ}10'09''\text{S}$, $46^{\circ}34'06''\text{E}$), located 10 km to the west of Maevatanana and 175 km to the southeast of Mahajanga (Figure 2).

On 5 July 2021, we observed a few individuals ($n = 12$) of *P. domesticus* in an *Adina microcephala* (family Rubiaceae) tree located in the center of Mahazoma village. We spent several hours observing these individuals and their behavior, as well as taking photos. The majority of individuals were still in the nest building phase: coming and going to collect nesting material from the neighboring grass fields. Given the importance of correct documentation of a significant range extension of this alien species, we returned to the site on 17 July 2021 to estimate the abundance and to observe some nesting behavior, as

well as to conduct a survey with the local population on this species. During this second visit, more than 20 individuals and six nests were counted in the *Adina* tree. These nests were built with grass and twigs and placed on tree branches. It is apparently uncommon to observe *P. domesticus* placing their nests on tree branches, as the species usually nest in cavities, such as eaves, roofs and crevices of houses, and holes in cliffs and banks (Kulczewski & Mazur-Gierasinska, 1968; Safford & Hawkins, 2013; Goodman *et al.*, 2017).

The observation of *P. domesticus* in Mahazoma suggests that this species has considerably expanded its range, and from the coastal town of Mahajanga to more inland areas of lowland northwestern Madagascar. Our observation is consistent with the statement of Goodman *et al.* (2017) that individuals of *P. domesticus* are present in substantial numbers in different areas of Madagascar and have a broad distribution in portions of lowland central Madagascar.

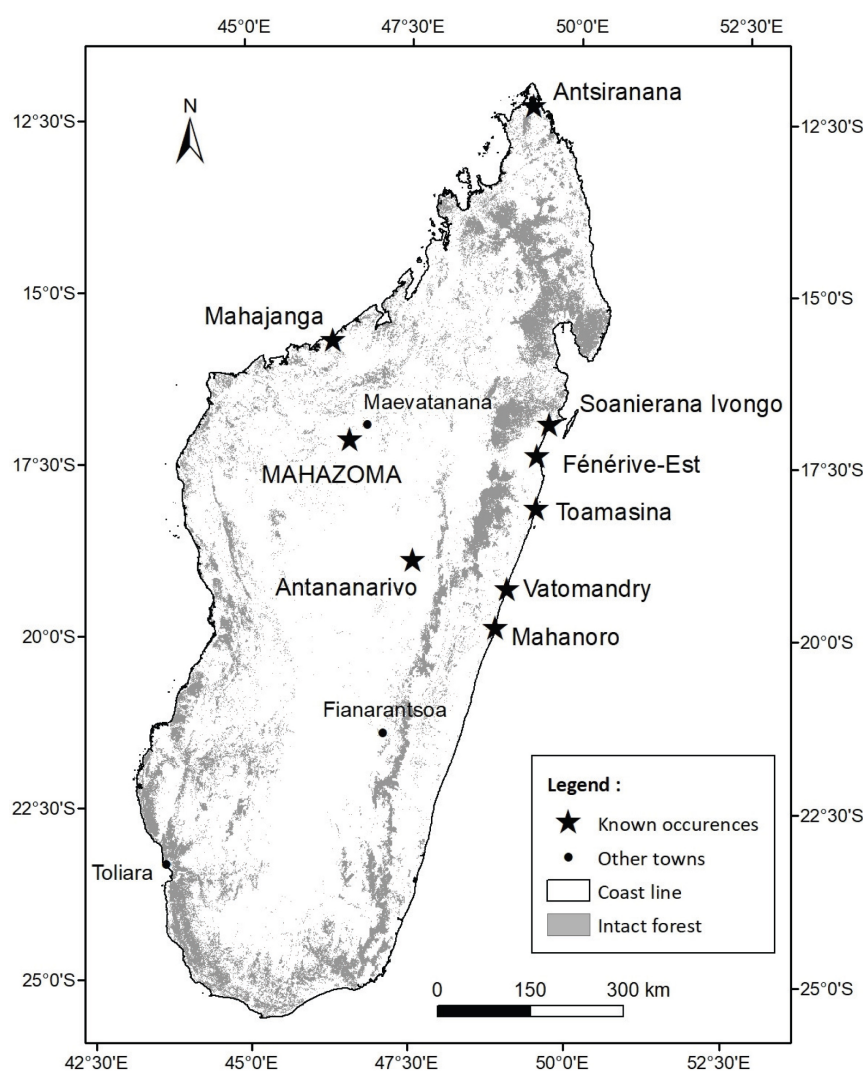


Figure 2. Map showing the location of Mahazoma village and the known distribution of the House Sparrow *Passer domesticus* in Madagascar.

We assume that the population observed in Mahazoma originated from Mahajanga. Interviewed people in Mahazoma mentioned the presence of *P. domesticus* in this village since 2018. They also mentioned that this species consumes rice in their fields. The individuals were often observed eating on the ground and collecting nesting materials (rice cobs).

Establishment of *P. domesticus*, as that of other invasive alien species, presents risks to native wildlife, as well as to humans. As the eradication of this species on Madagascar is no longer possible, given the estimates of the number of individuals along the central east coast as reported by Goodman *et al.* (2017), we strongly support the call for implementation of a program of population control for the objective of reducing the impact on native and often endemic species that *P. domesticus* is competing with.

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