



BROWN-AND-YELLOW MARSHBIRD (*Pseudoleistes virescens*) AS A HOST OF THE SCREAMING COWBIRD (*Molothrus rufoaxillaris*): FIRST EVIDENCE OF FLEDGLINGS' ATTENDANCE

El Pecho Amarillo (*Pseudoleistes virescens*) como hospedador del Tordo Pico Corto (*Molothrus rufoaxillaris*): primera evidencia de cuidado de sus volantones

Myriam E. Mermoz^{1*} & Emilio M. Charnelli²

¹Instituto de Ecología, Genética y Evolución de Buenos Aires (IEGEBA-UBA-CONICET), Facultad de Ciencias Exactas y Naturales, Universidad de Buenos Aires, Argentina

²Sarmiento 1176, General Madariaga, Argentina

*myriammermoz@gmail.com

ABSTRACT: The Screaming Cowbird (*Molothrus rufoaxillaris*) is a highly specialized brood parasite that primarily parasitizes the Greyish Baywing (*Agelaioides badius*). Being parasitized at a markedly lower frequency, the Brown-and-yellow Marshbird ('Marshbird', *Pseudoleistes virescens*) has been reported as an 'alternative host'. However, previous studies on this alternative host ended when Screaming Cowbird fledglings left the nest. In 2024, during a study on the breeding success and survival of fledglings of Marshbirds in General Madariaga (Buenos Aires province, Argentina), we found that 15.6% of nests ($n = 10$) were parasitized by Screaming Cowbirds; four of which reached the fledgling stage. We recorded the post-fledgling care of two Screaming Cowbird fledglings from one nest up to 20 days after they fledged. Given that Screaming Cowbird chicks remain in the nest until they are 7-12 days old, the total care time recorded by Marshbirds for these two chicks was 32 days. This value falls within the range of 30-40 days reported for the Greyish Baywing. The reported quality (Screaming Cowbird nestlings ready to fly) of alternative hosts, including Marshbirds, is similar to that of Greyish Baywing. Therefore, the Screaming Cowbird's preference for Greyish Baywing could be related to interspecific competition for potential hosts with the generalist brood-parasite, the Shiny Cowbird (*Molothrus bonariensis*).

KEYWORDS: brood parasitism, cooperative breeding, effective host, host quality, host selection, parental care

RESUMEN: El Tordo Pico Corto (*Molothrus rufoaxillaris*) es un parásito de cría altamente especializado que principalmente parasita al Músico (*Agelaioides badius*). Siendo parasitado con una frecuencia marcadamente menor, el Pecho Amarillo (*Pseudoleistes virescens*) ha sido reportado como 'hospedador alternativo'. Sin embargo, los estudios previos finalizaron cuando los volantones de Tordo Pico Corto abandonaron el nido. En 2024, durante un estudio sobre el éxito reproductivo y supervivencia de los volantones de Pecho Amarillo en General Madariaga (provincia de Buenos Aires, Argentina), detectamos que 15.6% de los nidos ($n = 10$) fueron parasitados por Tordo Pico Cortos. Cuatro de esos nidos alcanzaron el estadio de volantón. Registramos el cuidado parental fuera del nido de dos volantones de Tordo Pico Corto de un nido hasta 20 días luego de abandonarlo. Dado que los pichones de Tordo Pico Corto permanecen en el nido hasta los 7-12 días de edad, el tiempo total de cuidado parental por parte de los Pecho Amarillo hacia esos pichones fue de 32 días. Este valor está incluido dentro del rango de 30-40 días reportado en Músico. La calidad reportada (pichones aptos para volar) de los hospedadores alternativos, incluyendo al Pecho Amarillo, es similar a la del Músico. Entonces, la alta preferencia de los Tordo Pico Corto por el Músico podría estar relacionada con la competencia interespecífica con el altamente generalista Toro Renegrido (*Molothrus bonariensis*) en la mayor parte de sus hospedadores potenciales.

PALABRAS CLAVE: calidad del hospedador, cría cooperativa, cuidado parental, hospedador efectivo, parasitismo de cría, selección de hospedadores

The females of interspecific brood parasites lay their eggs in nests of other species - the host - which provide all parental care to parasitic eggs and chicks (Rothstein 1990, Antonson et al. 2020). As brood parasites depend completely on their hosts to complete their breeding cycle, their fitness will closely relate to their efficiency in host selection (Molina-Morales et al. 2016, Reboreda et al. 2018, Soler 2018). Brood parasites encompass 1% of living species, and this behavior evolved independently seven times: three times within the Cuckoos, and once within the remaining groups Indicatoridae, Ploceidae, Icteridae, and Anatidae (Spottiswoode et al. 2012). The cowbird group (*Molothrus*, Icteridae) includes five species, all brood parasites. Nevertheless, they exploit hosts in different manners: two species are characterized by being highly generalist parasitizing more than 200 species: Shiny Cowbird (*Molothrus bonariensis*) and Brown-headed Cowbird (*Molothrus ater*), with 278 and 248 recorded hosts, respectively (Lowther 2025). On the other extreme, Screaming Cowbird (*Molothrus rufo-axillaris*) is the most specialist one, parasitizing mainly Greyish Baywings (*Agelaioides badius*) in most parts of its distribution (Hudson 1874, Fraga 1998). However, in the last 40 years, it was found that two effective hosts are regularly parasitized by Screaming Cowbird but at markedly lower frequency: Chopi Blackbird (*Gnorimopsar chopi*) and Brown-and-yellow Marshbird (*Pseudoleistes virescens*; Sick 1985, Fraga 1996, Mermoz & Reboreda 1996, Mermoz & Fernández 2003, Fraga 2008, Di Giacomo & Reboreda 2015, Lima 2021). More recently, two other effective hosts have been reported: the Austral Blackbird (*Curaeus curaeus*) in new expanded areas of central Chile (Barros 2015, Pantoja et al. 2023) and the Scarlet-headed Blackbird (*Amblyramphus holosericeus*) within its historical range (Mermoz et al. 2021a). Except for the Scarlet-headed Blackbird, the reproductive system of all hosts of the Screaming Cowbird includes helpers-at-the nest (Hudson 1920, Orians et al. 1977, Orians 1980, Fraga 1991, 2008). In addition, the Screaming Cowbird is sympatric with the Shiny Cowbird throughout its entire range (Jaramillo & Burke 1999), which is the principal brood parasite of alternative hosts, such as the Brown-and-yellow Marshbird, and most potential hosts (Mermoz & Fernández 2003, Mermoz & Reboreda 2003).

Among the commonly used alternative hosts for Screaming Cowbirds, information on their host quality varies. For example, there is good information on the Chopi Blackbird host quality regarding cowbird eggs and chicks (Di Giacomo & Reboreda 2015). In addition, there are records of Screaming Cowbird fle-

dglings with attending hosts in Brazil and northeast Argentina (Sick 1985, Fraga 1996, 2008). In contrast, for the Austral Blackbird, all data are limited to multiple records of hosts caring for Screaming Cowbird fledglings (Barros 2015, Pantoja et al. 2023). On the other hand, in previous studies on Brown-and-yellow Marshbirds, data collection ended when Shiny and Screaming Cowbirds abandoned the nests (Mermoz & Reboreda 1996, 2003, Mermoz & Fernández 2003). Records of parental care by Brown-and-yellow Marshbirds to Shiny Cowbird fledglings were anecdotal, summing three instances (ME Mermoz, JC Reboreda & GJ Fernández, unpub. data). In contrast, we have no records of attention toward Screaming Cowbird fledglings. The lack of anecdotal resighting might be the consequence of the significantly lower parasitism frequency of Screaming compared to Shiny Cowbirds (averages 13 vs. 68%; Mermoz & Reboreda 1996, 2003, Mermoz & Fernández 2003). Therefore, an active search for Screaming Cowbird fledglings is needed to confirm the quality of Brown-and-yellow Marshbirds as an alternative host.

In the context of a long-term study of Brown-and-yellow Marshbirds breeding success and survival of their fledgling and juveniles, we monitored nests from egg laying to fledging. In addition, we periodically searched for the fledglings once they left the nest. Our aim in this study was to report the first observations of post-fledgling parental care and survival of Screaming Cowbird that fledged from Brown-and-yellow Marshbird nests. Additionally, we present information on parasitism rates by Screaming and Shiny Cowbirds in a new locality.

METHODS

Study area and species

During 2018-2024, we searched and monitored Brown-and-yellow Marshbird (hereafter Marshbirds) nests from September to mid-January in roadsides with low traffic intensity located near General Madariaga city (37°00'S, 57°08'W), Buenos Aires province, Argentina. The study area is within the flooding Pampas, a flat region no more than 4 m above sea level. The vegetation of the flooding Pampas included marshes and humid grasslands with scattered patches of native woodlands (mainly of *Celtis tala*) in the higher areas. The climate of flooding Pampas is temperate subhumid, with a mean annual rainfall varying from 1000 mm in the north to 850 mm in the south. Mean annual temperatures range from 15.98°C in the north

to 13.88°C in the south. The landscape is extremely flat, making soil drainage difficult except in ridge areas with well-drained sandy soils. Approximately 20% of the flooding Pampas were never plowed due to limitations to agriculture imposed by soil properties and periodic flooding (Chaneton et al. 2005). Marshbirds are resident year-round, and nest from September to early January. They are facultative cooperative breeders with roughly 50% nests attended by 1-5 helpers that associate with the nest since egg laying. Helpers defend the nest against predators and brood parasites, and may feed the incubating female, nestlings, and fledglings (Orians 1980, Mermoz et al. 2021b, 2025). Ninety percent of helpers are males, most being previous offspring helping one or both parents (Mermoz et al. 2021b). Nests are open-cup, 15-20 cm in diameter, and are built 0.3-2.0 m above ground in native pampa grasses (*Cortaderia selloana*), cattails (*Typha* sp.) or black rushes (*Juncus acutus*), and in exotic thistles (*Cynara cardunculus*, *Carduus* sp.), or Fuller's teasel (*Dipsacus sativus*).

General methodology

To find nests, we followed behavioral cues from adults (i.e., a Marshbird gathering nest materials or food, mobbing, alarm calls) by searching for the most commonly used vegetation substrates on roadsides. We georeferenced and discreetly marked all nests with a small flag placed more than 10 m away. We checked them every 2-4 days until nestlings fledged or the nest failed. We assigned eggs and nestlings to host or each cowbird species using our knowledge or published information (Fraga 1979, 1998, Mermoz & Fernández 2003, Mermoz & Reboreda 2003). As part of ongoing projects, during the 2018-2023 period, we removed all Shiny and Screaming Cowbird eggs during the first days of incubation. However, during 2024, we only removed Shiny Cowbird eggs, allowing all Screaming Cowbird eggs to hatch. We banded host (and in 2024 also Screaming Cowbird) fledglings with a unique combination of three plastic-color bands plus a numbered metal ring. After all fledglings left the nest, we searched the nest vicinity with binoculars once a week to find them. When we did not detect adults with fledglings during the first two visits, we used their vocalizations to attract them. We used the speakers of our vehicle (Renault Duster Oroch) to broadcast published vocalizations of Marshbirds recorded in localities close to our study area (compilation by López-Lanús et al. 2008). All vocalizations lasted less than a min in length, using our experience in the field to classify them in three contexts: a) 'gather song' in which the Mars-

hbirds stand in a perch and attract other individuals (11 songs); b) 'fly song' used during flying and that may attract individuals that are in the ground (three songs); and c) 'alarm call' that is emitted in presence of predators and attract individuals of own and other species (three audios). To avoid stress or habituation of focal adults, the three vocalizations of Marshbirds were followed by five sec of silence plus a 40-sec song of a neutral species: Rufous Hornero (*Furnarius rufus*), Yellow-winged Blackbird (*Agelasticus thilius*), or Hooded Siskin (*Spinus magellanicus*). Therefore, we played Marshbird gather song, fly song, and alarm call, each followed by silence plus neutral species song. Then, the broadcast of the six types of vocalizations or songs lasted five min. We stopped the broadcast as soon as the adults approached the vehicle, allowing us to locate and verify the identity of the fledglings.

RESULTS AND CONCLUSION

During the seven years of the study, we found 401 Marshbird nests (60 nests in 2018; 55 nests in 2019; 29 nests in 2020; 109 nests in 2021; 50 nests in 2022; 34 nests in 2023, and 64 nests in 2024). Of the 401 nests, 23.20% ($n = 93$) were found during building, 37.90% ($n = 152$) during egg laying, 27.18% ($n = 109$) during incubation, and only 11.72% ($n = 47$) after some nestling hatched. Most nests 69.08% ($n = 277$) failed due to predation (228 nests during the egg stage and 49 nests during the nestling stage), 28.93% ($n = 116$) reached the fledgling stage, and we do not know the fate of the seven remaining nests. In addition, parasitism rates by Cowbird species (i.e., either Shiny, Screaming, or both species simultaneously) averaged 50.62% (range 41.4-61.7%), with 42.4% of nests being parasitized solely by Shiny Cowbird (range 34.4-51.7%). Parasitism rates of Screaming Cowbirds (i.e., solely or simultaneously with Shiny Cowbird) averaged 10% (range 1.8-15.6%), with roughly half of the nests being parasitized also by Shiny Cowbirds. In detail, parasitism rates solely by Screaming Cowbirds averaged 6.2% (range 1.8-11.7%), while nests parasitized simultaneously by both Cowbird species averaged 4% (range 0-9%; Fig. 1).

Attendance toward Screaming Cowbird fledglings

Of the 64 nests found during 2024, five (7.8%) were parasitized by Screaming Cowbirds, and another five by both Screaming and Shiny Cowbirds. Six of the nests parasitized by Screaming Cowbirds were depredated (one during laying, three during incubation, and

two after the nestlings hatched), and the remaining four (40%) reached the fledging stage. Of these nests, three produced fledglings of both host and Screaming Cowbirds (two nests produced one fledgling of each species, while the third nest produced two fledglings of the host with one of the parasite), and one produced only two Screaming Cowbird fledglings. We observed the two Screaming Cowbirds from the last nest three times up to 20 days after fledging. All instances took place within 150 m of the natal nest. The first two resights occurred six and ten days after fledging, respectively. We were able to resight the fledglings without broadcast vocalizations and identify both fledglings by their leg bands (Figs. 2a & b). During these observations that lasted approximately four min, two Marshbird adults carried one item of food. One adult ate the food item, and we could not observe any feeding behavior toward the fledglings. Eating food instead to feeding, is an usual behavior when adult Marshbird are with their own fledglings and detect us. In the third resight that took place 20 days after fledging, Marshbird adults and the two Screaming Cowbirds fledglings were attracted by the broadcast

of the alarm call. We could identify only one of the two Screaming Cowbird fledglings by its leg bands, as we could not see the legs of the other fledgling. On all three occasions, the Screaming Cowbirds were escorted by three to five adults, with some individuals vocalizing alarm calls. The fledglings from the remaining three nests parasitized by Screaming Cowbirds that were successful could not be resighted, even when we broadcast Marshbird vocalizations. We believe that the nest environment could be at least partly responsible. Two of the three nests were located in very open places (Fig. 2c). In such open areas, adults tend to move their fledglings to more covered habitats as soon as possible (ME Mermoz & EM Charnelli, unpub. data). The covered areas closest to the roadsides where those two nests were built were at least 300 m from the roadside. Since we did not have free access to private land, these areas were inaccessible. The remaining nest was located within a roadside on a rural unpaved road in a small swampy area (about 4 m in diameter), surrounded by Pampa grasses over 1.5 m tall and two rows of high tala trees covering a 200 m long section (Fig 2d). Because of these dense vegetation barriers in

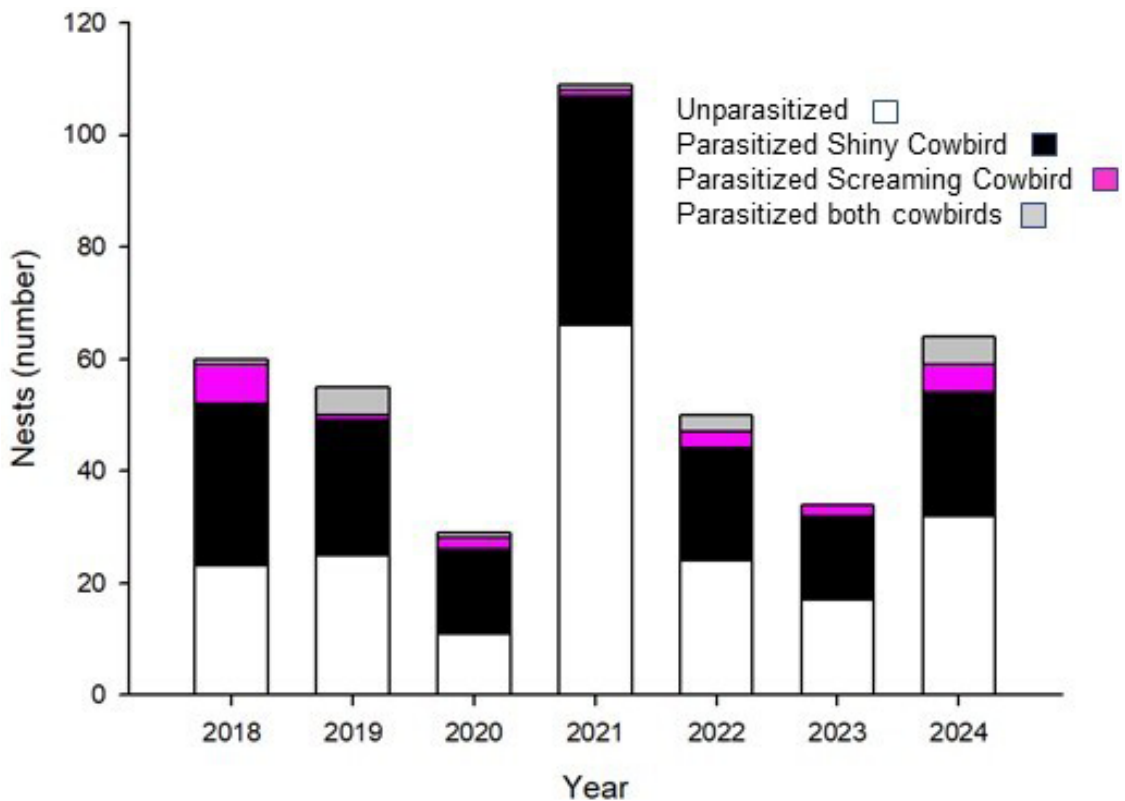


Figura 1. Number of Brown-and-yellow Marshbird (*Pseudoleistes virescens*) nests found and brood parasitism over the seven years of the study (2018-2024). The stacked columns in the histogram show unparasitized nests, nests parasitized by Shiny Cowbird (*Molothrus bonariensis*), nests parasitized by Screaming Cowbirds (*Molothrus rufoaxillaris*), and nests parasitized by both cowbird species.

the vicinity of the nest, it was very difficult to detect or track any fledglings. By contrast, the Screaming Cowbird fledglings that we could follow departed from a nest built on the same roadside, but it had intermediate cover in its vicinity. The nest area was surrounded by medium-sized Pampa grasses, small ditches, and small scattered individuals of tala trees (Fig. 2b). That area was ideal as it allowed adults to remain within the nest vicinity with their fledglings, which facilitated us in following the group.

Survival and resighting of host and Screaming Cowbird fledglings

We obtained information on Marshbird attendance at one of four nests that raised Screaming Cowbird fledglings. This single instance is within the expected number of recorded attendances of their own young. In 2024, 10 nests not parasitized by Screaming Cowbirds produced Marshbird fledglings, and we can only observe the fledglings from two nests. In addition, Screaming Cowbird fledglings need parental care from Greyish Baywings until they are 30-40 days old (Fraga 1998, Ursino et al. 2012). Marshbirds care for

both their own and cowbird nestlings until they are 7-12 days old (Mermoz & Fernández 2003, Mermoz & Reboreda 2003). Therefore, our last observation of Screaming Cowbird fledglings 20 days after leaving the nest occurred at the end of the parental care period.

Our study indicated that Marshbirds provide the parental care that Screaming Cowbird fledglings need to complete their development. Therefore, it is valid to compare the quality that the Marshbirds and Chopi Blackbirds offer as alternative hosts for Screaming Cowbird. To compare the quality of Marshbirds with that of Chopi Blackbirds, we searched for data on the proportion of Screaming Cowbird fledglings produced per egg laid. In the Flooding Pampas (central Argentina), Screaming Cowbird success in Marshbird nests was 0.10 fledglings per egg, considering all nests (i.e., including those that failed; $n = 40$ nests; Mermoz & Fernández 2003). Meanwhile, in northeast Argentina, Chopi Blackbirds produced 0.17 fledglings per egg, but this time considering only nests reaching the fledgling stage ($n = 42$ nests; Di Giacomo & Reboreda 2015). However, Screaming Cowbirds parasitize Greyish Baywings with one of the highest frequencies and

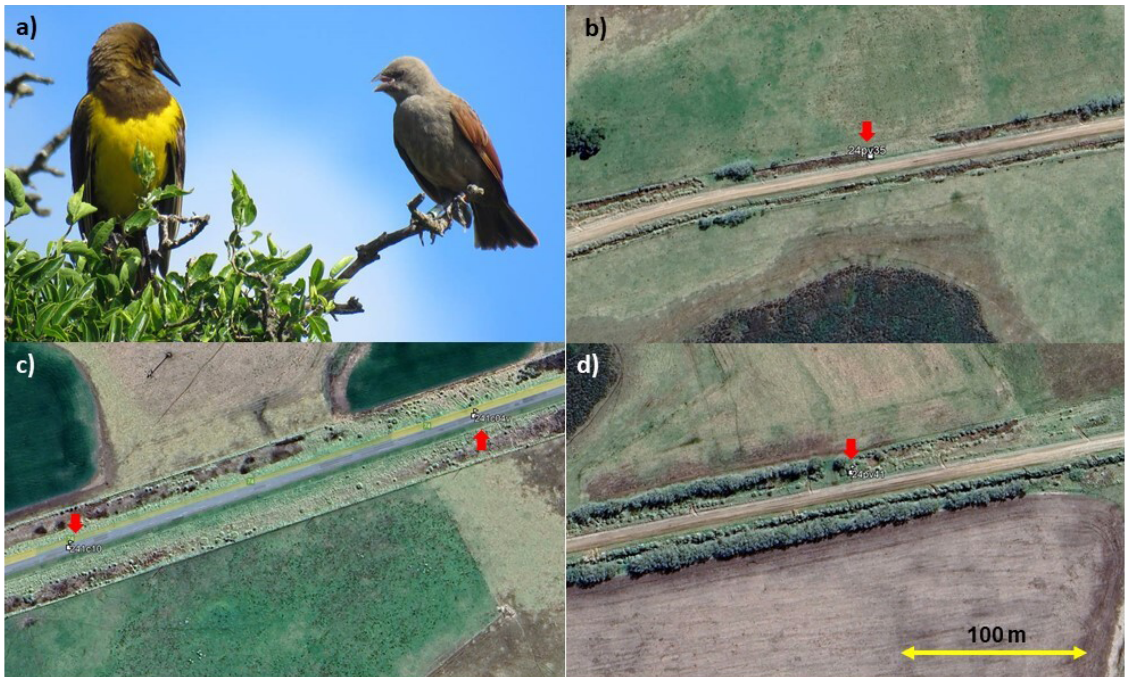


Figure 2. Screaming Cowbird (*Molothrus rufoaxillaris*) fledglings and locations of successful Brown-and-yellow Marshbird (*Pseudoleistes virescens*) nests parasitized by Screaming Cowbirds. (a) An adult Brown-and-yellow Marshbird escorting one of the Screaming Cowbird fledglings 10 days after leaving the nest. (b-d) The environment near the parasitized nest that reached the fledgling stage. Red arrows indicate the location of the nests, while the yellow horizontal arrow represents the scale. (b) The environment near the nest where we tracked its two Screaming Cowbird fledglings, showing its intermediate vegetation cover. (c-d) The environment near the nests whose Screaming Cowbird fledglings we could not follow. In two nests (c), the environment was very open. Adults often move their fledglings to more covered areas (in these cases, these areas were 300 m from the natal nests). In the third nest (d), the nest site was surrounded by high and dense tala trees and pampa grasses, making it difficult to follow any fledgling. (b-d) Images from Google Earth Pro®.

intensities recorded for a brood parasite (83-100%; De Mársico et al. 2010), in contrast to the comparatively low frequency in alternative hosts (averaging 10-46% this study; Mermoz & Fernández 2003, Di Giacomo & Reboreda 2015). Moreover, a higher reproductive success of the Screaming Cowbirds parasitizing the Greyish Baywings has not been confirmed throughout its distribution. For example, in the Flooding Pampas, it was estimated as 0.19 fledglings per egg, considering nests that reach the fledgling stage ($n = 14$ nests; De Mársico & Reboreda 2008). However, in northeast Argentina, Screaming Cowbirds had higher success with Chopi Blackbirds, as only 0.12 fledglings per egg were produced in Greyish Baywing nests ($n = 5$ nests; Di Giacomo & Reboreda 2015).

Screaming Cowbirds' specialization in host use could not be fully explained by a higher reproductive success in their primary host. Alternatively, given that Marshbirds are primarily parasitized by Shiny Cowbirds (Mermoz & Fernández 2003, Mermoz & Reboreda 2003), interspecific competition with this highly generalized brood parasite may play an important role in host selection by Screaming Cowbirds.

ACKNOWLEDGMENTS

We are very grateful to Vanina Fiorini for her useful comments on earlier versions of the manuscript. In addition, the editor Lucia Montesana, the associated editor Gustavo Fernández, and two anonymous reviewers provided important feedback that largely improved the published version. Fieldwork was done under Buenos Aires Province permission (EX2020-28615190-GDBA-DSTAMAGP-MERMOZ, Myriam). MEM is a Research Fellow of Consejo Nacional de Investigaciones Científicas y Técnicas (CONICET). The authors have no conflicts of interest to disclose.

REFERENCES

- Antonson ND, Rubenstein DR, Hauber ME, Botero CA (2020) Ecological uncertainty favours the diversification of host use in avian brood parasites. *Nature Communications* 11(1):4185. <https://doi.org/10.1038/s41467-020-18038-y>
- Barros R (2015) El Mirlo de pico corto *Molothrus rufoaxillaris*, una nueva especie para Chile. *La Chiricoca* 19:36-44. http://www.lachiricoca.cl/wp-content/uploads/2018/03/La-Chiricoca-19_part5_c.pdf
- Chaneton EJ, Perelman SB, León RJC (2005) Floristic heterogeneity of Flooding Pampa grasslands: a multi-scale analysis. *Plant Biosystems* 139(3):245-254. <https://doi.org/10.1080/11263500500340714>
- De Mársico MC, Reboreda JC (2008) Differential reproductive success favours strong host preference in a highly specialized brood parasite. *Proceedings of the Royal Society of London B* 275(1650):2499-2506. <https://doi.org/10.1098/rspb.2008.0700>
- De Mársico MC, Mahler B, Chomnalez M, Di Giacomo AG, Reboreda JC (2010) Host use by generalist and specialist brood-parasitic cowbirds at population and individual levels. In: Macedo R (ed). *Advances in the Study of Behavior* (Vol 42), Academic Press, Burlington. Pp 83-121. [https://doi.org/10.1016/S0065-3454\(10\)42003-3](https://doi.org/10.1016/S0065-3454(10)42003-3)
- Di Giacomo AG, Reboreda JC (2015) Reproductive success of the specialist brood parasite Screaming Cowbird in an alternative host, the Chopi Blackbird. *The Auk* 132(1):16-24. <https://doi.org/10.1642/AUK-13-008.1>
- Fraga RM (1979) Differences between nestlings and fledglings of Screaming and Bay-winged Cowbirds. *The Wilson Bulletin* 91(1):151-154
- Fraga RM (1991) The social system of a communal breeder, the Bay-winged Cowbird *Molothrus badius*. *Ethology* 89(3):195-210. <https://doi.org/10.1111/j.1439-0310.1991.tb00304.x>
- Fraga RM (1996) Further evidence of parasitism of Chopi Blackbirds (*Gnorimopsar chopi*) by the specialized Screaming Cowbird (*Molothrus rufoaxillaris*). *The Condor* 98(4):866-867. <https://doi.org/10.2307/1369874>
- Fraga RM (1998) Interactions of the parasitic Screaming and Shiny Cowbirds (*Molothrus rufoaxillaris* and *M. bonariensis*) with a shared host, the Bay-winged Cowbird (*M. badius*). In: Rothstein, SI Robinson SK (eds) *Parasitic birds and their hosts, studies in coevolution*, Oxford University Press, New York pp 173-193
- Fraga RM (2008) Notes on the nesting of Chopi Blackbirds (*Gnorimopsar chopi*) in Argentina and Paraguay, with data on cooperative breeding and brood parasitism by Screaming Cowbirds (*Molothrus rufoaxillaris*). *Ornitologia Neotropical* 19:299-303
- Hudson WH (1874) Notes on the procreant instincts of the three species of *Molothrus* found in Buenos Ayres. *Proceedings of the Zoological Society of London* 42(1):153-174. <https://doi.org/10.1111/j.1096-3642.1874.tb02466.x>
- Hudson WH (1920) *Birds of La Plata*. Dent and Sons Ltd, Toronto, Canada
- Jaramillo A, Burke P (1999) *New World blackbirds: the Icterids*. Princeton University Press, Princeton, New Jersey
- Lima RD (2021) An obligate brood parasite, the Screaming Cowbird (*Molothrus rufoaxillaris*), more than doubled its range expanding northeastward in the last decades. *Ornithology Research* 29(2): 63-67. <https://doi.org/10.1007/s43388-021-00052-3>

- López-Lanús B (2008) Bird sounds from southern South America (DVD). Audiornis Producciones, Buenos Aires
- Lowther PE (2025) Lists of victims and hosts of the parasitic cowbirds (*Molothrus*). [URL: <https://www.datocms-assets.com/44232/1747156260-host-list-molothrus-ver09may2025.pdf>]
- Mermoz ME, Reboreda JC (1996) New host for a specialized brood parasite, the screaming cowbird. *The Condor* 98: 630-632
- Mermoz ME, Fernández GJ (2003) Breeding success of a specialist brood parasite, the Screaming Cowbird, parasitizing an alternative host. *The Condor* 105(1):63-72. <https://doi.org/10.1093/condor/105.1.63>
- Mermoz ME, Reboreda JC (2003) Reproductive success of Shiny Cowbird (*Molothrus bonariensis*) parasitizing the larger Brown-and-yellow Marshbird (*Pseudoleistes virescens*) in Argentina. *The Auk* 120(4):1128-1139. <https://doi.org/10.1093/auk/120.4.1128>
- Mermoz ME, Depalma DM, Charnelli EM, Zilli C (2021a) First record of parasitism of Scarlet-headed Blackbird (*Amblyramphus holosericeus*) by the specialized Screaming Cowbird (*Molothrus rufoaxillaris*). *El Hornero* 36(1):91-100. <https://doi.org/10.56178/eh.v36i1.434>
- Mermoz ME, Villarruel C, de la Colina A, Mahler B (2021b) Fledgling sex-ratio is biased towards the helping sex in a Neotropical cooperative breeder, the brown-and-yellow marshbird (*Pseudoleistes virescens*). *Behaviour*. 158(2):135-160. <https://doi.org/10.1163/1568539X-bja10061>
- Mermoz ME, Svagelj WS, Fernández GJ (2025) Helpers-at-the nest mitigate the costs of cowbird brood parasitism in brown-and-yellow marshbirds. *Ornithology Research* 33(1):11. <https://doi.org/10.1007/s43388-024-00218-9>
- Molina-Morales M, Martínez JG, Avilés JM (2016) Criteria for host selection in a brood parasite vary depending on parasitism rate. *Behavioural Ecology* 27(5):1441-1448. <https://doi.org/10.1093/beheco/arw066>
- Orians GH, Orians CE, Orians KJ (1977) Helpers at the nest in some Argentine blackbirds. In: Stonehouse B Perrins C. (eds) *Evolutionary Ecology*. Palgrave, London. https://doi.org/10.1007/978-1-349-05226-4_13
- Orians GH (1980) Some adaptations of marsh-nesting blackbirds. Vol.14 Princeton University Press, Princeton
- Pantoja V, Medrano F, Tejeda I (2023) Range expansion of the Screaming Cowbird (*Molothrus rufoaxillaris*) mediated by a new brood parasite-host interaction in central Chile. *Gayana* 87(1):18-24. <https://doi.org/10.4067/S0717-65382023000100018>
- Rothstein SI (1990) A model system for coevolution: avian brood parasitism. *Annual Review of Ecology and Systematics* 21:481-508
- Reboreda JC, Fiorini VD, De Mársico MC, Gloag R, Scardamaglia RC (2018) Parasitic Behaviour of Interspecific Brood Parasitic Females. In: Soler, M. (eds) *Avian Brood Parasitism. Fascinating Life Sciences*. Springer, Cham. https://doi.org/10.1007/978-3-319-73138-4_18. Pp 325-342
- Sick H (1985) *Ornitologia brasileira: uma introdução*. University of Brasilia, Brasilia
- Soler M (2018) Brood Parasitism in Birds: A Coevolutionary Point of View. In: Soler, M. (eds) *Avian Brood Parasitism. Fascinating Life Sciences*. Springer, Cham. https://doi.org/10.1007/978-3-319-73138-4_1. Pp 1-19
- Spottiswoode CN, Kilner RM, Davies NB (2012) Brood parasitism. In: Royle NJ, Smiseth PT, Kölliker M (eds) *The evolution of parental care*. Oxford University Press, Oxford
- Ursino CA, Facchinetti C, Reboreda JC (2012) Preformative molt in brood parasitic Screaming (*Molothrus rufoaxillaris*) and Shiny (*M. bonariensis*) Cowbirds. *Ornitologia Neotropical* 23:150-168