

**NATURAL HISTORY NOTE**

# A chucao tapaculo, *Scelorchilus rubecula* (Kittlitz, 1830), plucking hair from a southern pudu, *Pudu puda* (Molina, 1782), in the Chilean temperate forest

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**Abstract**

Although the incorporation of mammalian hair in nest construction for thermal insulation has been extensively documented among birds, the kleptotrichy—where birds pluck hair directly from living mammals—remains a relatively under-reported behaviour in the scientific literature. Our camera trap monitoring effort in Pumalín Douglas Tompkins National Park, Chile, captured a chucao tapaculo (*Scelorchilus rubecula*) plucking hair from a southern pudu (*Pudu puda*). The observed behaviour suggests an adaptation for obtaining nest material, particularly in high-latitude regions like our study area. The pudu's minimal reaction suggests that the hair removal was not perceived as uncomfortable, potentially because the hair was already being shed. This could also be interpreted as a case of ectoparasite removal or other mutualistic interactions. Further research is needed to determine the use of pudu hair as nest construction material and to explain the ecological implications of this behaviour. Our findings highlight the value of camera trap monitoring in expanding the knowledge of species interactions and providing insights about wildlife behaviours.

**KEYWORDS**

birds, camera trapping, interaction, kleptotrichy, plucking behaviour

## INTRODUCTION

The use of mammalian hair by birds as a material for the lining and structure of nests has been documented globally (Ondrušová & Adamík, 2013; Pollock et al., 2021; Sarlin & Morris, 2022; Tóth, 2008). This behaviour is interpreted as an adaptation of birds to increase the thermal insulation of their nests, thus favouring the survival of the chicks in adverse weather conditions, especially in cold and rainy regions (Deeming et al., 2020).

Typically, birds collect mammalian hair that get caught in branches, twigs, thorns or barbed wire, or they gather it directly from the ground or carcasses (Cody, 1991; Tóth, 2008). Active collection of hair from live animals ('kleptotrichy') is a rare, but likely overlooked, way of securing nest material by birds (Pollock et al., 2021).

## OBSERVATION

On 19 December 2021, we documented the interaction of a chucao tapaculo (*Scelorchilus rubecula*) and an adult southern pudu (*Pudu puda*) through a sequence of 156 images obtained by a camera trap. This camera was part of a camera trap monitoring programme, which included a 100-motion camera trap grid (1 × 1 km) deployed in the Pumalín Douglas Tompkins National Park (PDTNP), located in the Los Lagos district, Chile (42°35' S 72°29' W). This monitoring programme was developed in collaboration between Fundación Rewilding Chile, Panthera and the Chilean Forest Service (CONAF). Photographs showed the chucao repeatedly perching on the back of the pudu (Figure 1), over the course of approximately 3 min. This record occurred around 12:00, when the pudu was feeding on ferns, while the chucao moved through its lumbar and dorsal region. Throughout the sequence of images, the chucao can be seen carrying hair in its beak. This hair, which matches the stiffness and beige colouration of the pudu fur during moulting (Hershkovitz, 1982), was very likely obtained from the individual in the picture. The bird can be seen actively searching for the hairs as it is seen pecking at the cervid and holding the material, even as it descends to the ground and then returns to the back of the pudu. During the documented interaction, the pudu showed no apparent signs of discomfort or surprise. The only time in which the pudu turned its head to its back, it appeared to be more interested in feeding from a fern frond than in the chucao.

The assumption that the bird was collecting pudu hair as material for its nest is supported by the fact that the observation date matches with the bird's reproductive period (September–February, De Santo et al., 2002). Besides, this interaction occurred during the pudu's moulting season inferred by the hair colour (C. Saucedo, personal communication, 2024), when the winter coat is replaced by the new come in austral spring (November–December), at which moment the bird could take advantage of collecting the weak and loose hair directly from a live individual.

We conducted a search via Google using the following keywords: 'chucao' and 'pudu' for further evidence about this interaction. We found on Facebook social media platform a short video showing a similar interaction,



**FIGURE 1** A selection of four photographs from a camera trap showing a chucao tapaculo (*Scelorchilus rubecula*) plucking hair of a southern pudu (*Pudu puda*) in Southern Chile (photographs enclosed within white frames were subjected to zooming).

with a chucao tapaculo jumping on a southern pudu's back in Chiloé island (Isla Bruja Lodge, 2021). This suggests this behaviour might be much more common than expected among these two species.

## DISCUSSION

Here, we provide new information on the rarely documented behaviour of a bird plucking hair from a mammal, using motion-triggered cameras. We believe the choice of the chucao tapaculo to collect mammal hair as a nest-building material is very likely due to its thermal benefits, particularly in high-latitude regions such as our study area (Pollock et al., 2021). Although our explanation seems reasonable, alternative functions of mammalian hair used in nest construction—such as antiparasitic, antimicrobial, predator deterrence, decorative purposes or others—may also be involved. Further studies are required to confirm the use of pudu hair as material for nest construction by chucaos. In this sense, in their review of the documented cases of kleptotrarchy, Pollock et al. (2021) noted that all known cases belong to a relatively small group of passerine birds. Although our observation also involves a species in the order Passeriformes, the chucao tapaculo is the first member of the suboscine clade showing this behaviour, suggesting that kleptotrarchy may be a more widespread adaptation than was previously known.

In most of the reported cases of birds pulling hair from mammals, the latter have shown little or no response to this activity (Pollock et al., 2021), and many individuals were asleep while being robbed of their hair. In our observation, the pudu was awake and, very likely, aware of the presence of the chucao on its back. A potential explanation for the apparent tolerance to the chucao's activity is that the hair removal was not perceived as uncomfortable, likely because the hair was already being shed or might be the confusion with the extraction of ectoparasites or other mutualistic interaction (Cheney & Côté, 2005), maybe even producing a relief similar to that some deer experience when older hair is removed. With a larger volume of photographs documenting the interaction between these two species, it might be possible to investigate its real implications on pudu individuals.

The use of camera traps represents a non-invasive monitoring methodology for the study of elusive species (O'Connell et al., 2011) and enables the documentation of little-known interactions between species (Caravaggi et al., 2017). The increasing availability and use of this technology will contribute to expanding our understanding of the natural history of wildlife in remote, pristine and poorly known areas.

## AUTHOR CONTRIBUTIONS

**Liliana Guzmán-Aguayo:** Conceptualization (equal); investigation (lead); writing – original draft (lead); writing – review and editing (equal). **Benito A. González:** Investigation (supporting); writing – review and editing (equal). **Cristián F. Estades:** Investigation (supporting); writing – review and editing (equal). **Ingrid M. Espinoza-León:** Conceptualization (lead); resources (equal); writing – review and editing (equal). **Lorena A. Valenzuela-Lobos:** Writing – review and editing (equal). **L. Mark Elbroch:** Writing – review and editing (equal). **Wai-Ming Wong:** Writing – review and editing (equal). **Omar Ohrens:** Project administration (equal); resources (equal); writing – review and editing (equal). **Cristián Saucedo:** Conceptualization (lead); project administration (equal); resources (equal); writing – review and editing (equal).

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## CONFLICT OF INTEREST STATEMENT

There is no conflict of interest.

## DATA AVAILABILITY STATEMENT

There is no data set associated with this paper.

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