



First documented cases of invertebrate predation by greater grisons (*Galictis vittata*)

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Abstract

We report the first documented predation of invertebrates by greater grisons (*Galictis vittata*) based on camera-trap footage from a mineral lick in Southeastern Peru. Two adult individuals were recorded capturing and consuming large arachnids, likely whip spiders (Amblypygi), from a natural cavity. One grison visibly removed and discarded part of the prey prior to ingestion, suggesting selective handling to reduce risk from defensive structures. These observations extend the known cavity-focused foraging behavior of *G. vittata* and indicate that amblypygids may represent an underreported but regular prey item in tropical habitats.

Key words: Amblypygid, Camera trapping, Cavity foraging.

Resumen

Reportamos la primera evidencia documentada de depredación de invertebrados por parte del grisón (*Galictis vittata*), basada en registros de cámaras trampa obtenidos de un collpa en el sureste del Perú. Se registraron dos individuos adultos capturando y consumiendo grandes arácnidos, probablemente ambliopígididos (Amblypygi), extraídos de una cavidad. Uno de los individuos removió y descartó visiblemente parte de la presa antes de ingerirla, lo que sugiere un manejo selectivo destinado a reducir el riesgo asociado con estructuras defensivas. Estas observaciones amplían el conocimiento sobre el comportamiento de forrajeo centrado en cavidades de *G. vittata* e indican que los ambliopígididos podrían constituir un ítem presa subreportado pero regular en hábitats tropicales.

Palabras clave: Ambliopígido, Cámaras trampa, Forrajeo en cavidades.

The greater grison *Galictis vittata* (Carnivora, Mustelidae) is a mustelid with a broad geographic distribution across Central and South America (Yensen & Tarifa 2003). It is rare throughout its range however, particularly within the Amazon basin (Champagne et al. 2024; Janson & Emmons 1990). The species is also elusive and difficult to detect in the field, resulting in few direct observations and limited ecological studies (Bornholdt et al. 2013;

Yensen & Tarifa 2003). Consequently, *G. vittata* has been identified as a priority species for research in the region (Oliveira 2009). The limited information available suggests it is a generalist predator whose diet consists primarily of small vertebrates, mainly mammals, but also birds, reptiles, amphibians, and fish (Bisbal 1986; Cintra 1988; Hidalgo-Mihart et al. 2018; Kays 1996; Sunquist et al. 1989; Yensen & Tarifa 2003).

We recorded valuable video footage on this species within the Los Amigos Conservation Concession, Peru (Figure 1). The site lies at ~250 masl, encompassing terra firme and várzea forests, oxbow lakes, bamboo thickets, and palm swamps, with a humid tropical climate (Whitworth et al. 2022). A Browning Strikeforce camera trap was set up at a mineral lick where a small natural cavity had formed (-12.5394, -70.0795). The camera trap was programmed to record 15s videos with a 10s delay between triggers. On 10 July 2024, between 10:40 and 10:42 h, Three consecutive video clips documented a pair of adult *G. vittata* preying upon large arachnids.

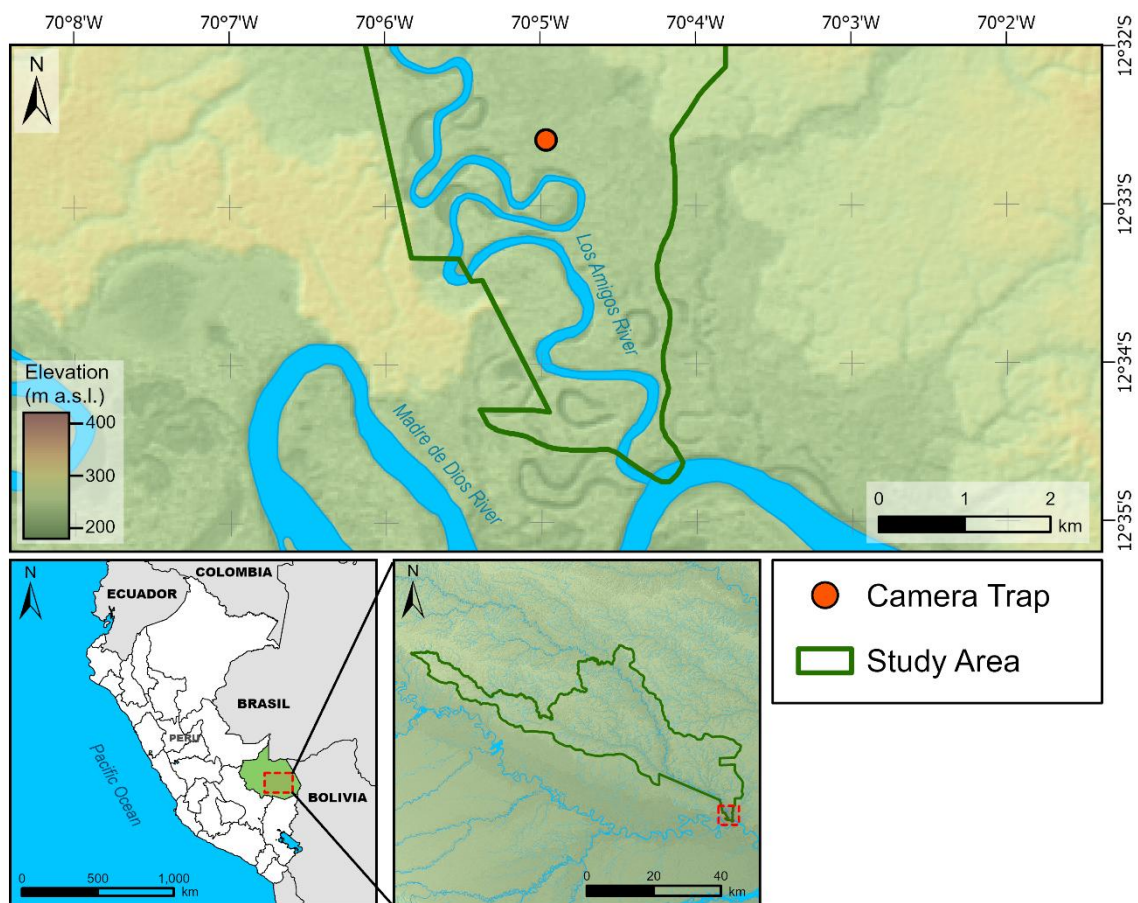


Figure 1. Map of the study area showing the Los Amigos Conservation Concession and the camera trap location.

In the first clip, one individual entered the cavity while the second arrived a few seconds later and remained outside. Shortly thereafter, a large arachnid emerged from the cavity and was intercepted by the second individual before the first could capture it. The prey appears to be a whip spider (Arachnida: Amblypygi) based on its large size and apparent flattened body (Weygoldt 2000). However, definitive taxonomic identification was not

possible due to the inherent limitations of camera trap imagery for distinguishing invertebrate taxa. In the second clip, the first individual exited the cavity carrying a second large arachnid of similar appearance. Both individuals then handled and consumed their prey in close proximity to one another (Figure 2). One individual was observed to remove and discard part of the body before consuming the remainder of the prey. In the third clip, both individuals finished feeding. One individual left the frame almost immediately, while the second briefly inspected the cavity before departing in the same direction as the first and opposite to the direction from which they had arrived in the first clip.



Figure 2. Screenshot of a camera trap video displaying a pair of *G. vittata* feeding on large arachnids.

Although invertebrates have been mentioned in general descriptions of the diet of *G. vittata* (Yensen & Tarifa 2003), clear documentation of their predation remains absent. The frequently cited accounts report a captive individual attacked insects and a tarantula but did not ingest them (Kaufmann & Kaufmann 1965). An earlier observation inferred insectivory based on interactions with experimentally offered injured roaches to a captive individual (Dalquest & Roberts 1951). To date, there are therefore no clear records documenting the predation of invertebrate prey by *G. vittata*.

The hunting behavior observed in this study is consistent with previous suggestions that *G. vittata* specializes in exploiting cavities and burrows as foraging sites (Whitworth 2023). Captive individuals have similarly been reported to investigate and enter large rodent burrows (Yensen & Tarifa 2003). Our observations extend this cavity-focused foraging strategy to the capture of invertebrate prey.

During prey handling, one individual was observed to bite and discard a body part before consuming the remainder. Video resolution limited exact identification, but the removed structure appeared to be the anterior region. Amblypygids possess enlarged raptorial pedipalps and are capable of rapid defensive movements, which may pose a risk to predators (Weygoldt 2000). This selective removal may therefore reduce the risk associated with handling and consumption of this taxa.

This specialized level of observed prey processing suggests that such prey may be encountered regularly during cavity-focused foraging. Amblypygids could therefore represent a potentially important and underreported prey item for *G. vittata* in tropical habitats.

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DATA AVAILABILITY

The camera trap footage can be accessed through the following link:

<https://doi.org/10.5446/72418>

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