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FIELD NOTE

Observations on the diet of the giant armadillo (*Priodontes maximus* Kerr, 1792)

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Abstract In this short note we report on the stomach contents of a giant armadillo (*Priodontes maximus*) in the Bolivian Amazon. The stomach exclusively contained seeds of a relatively large-seeded unknown species of fig (*Ficus* sp.). Subsequent observations under fruiting *Ficus* free-standing trees at a second location in eastern Bolivia further suggested that *Priodontes* occasionally feed on figs.

Keywords: Bolivia, *Ficus*, frugivory, insectivore, *Priodontes*

Observaciones sobre la dieta del armadillo gigante (*Priodontes maximus* Kerr, 1792)

Resumen En esta nota se brinda información sobre el contenido estomacal de un armadillo gigante (*Priodontes maximus*) en la Amazonía boliviana. El estómago contenía exclusivamente semillas de una especie desconocida y relativamente grande de higo (*Ficus* sp.). Observaciones posteriores sobre la fructificación de los árboles del género *Ficus* en un segundo sitio en el este de Bolivia aportaron evidencia adicional de que *Priodontes* se alimenta ocasionalmente de higos.

Palabras clave: *Bolivia*, *Ficus*, frugivoría, insectívoro, *Priodontes*

Giant armadillos (*Priodontes maximus*) are naturally rare and due to overhunting are threatened across much of their range. As such they are currently considered a CITES Appendix I species and classified as Vulnerable by the IUCN (Superina & Abba, 2010), while in Bolivia they are also considered Vulnerable in the Vertebrate Red Data Book of Bolivia (Tarifa, 2009). Recent systematizations of giant armadillo records demonstrate a widespread distribution in the Bolivian lowlands (Noss *et al*., 2010; Wallace *et al*., 2010, 2013).

The giant armadillo has been previously described as nocturnal, solitary and principally insectivorous, particularly favoring termites (Redford, 1987). During multi-disciplinary biodiversity surveys in the Rios Blanco y Negro Wildlife Reserve in northern Santa Cruz Department, Bolivia, we were able to examine the stomach contents of one adult female that had been hunted for subsistence by a local 'ribereño'. Subsistence hunting of wildlife by local people in Bolivia is legal. This individual was shot in forest immediately bordering the Rio San Pablo at the mouth of the Rio Negro de Caimanes (14º43'S, 63º58'W) on 10 June 1993, at approximately 08:00 hr. The female was moving rapidly, followed by a second adult giant armadillo; though the sex of the second individual was not determined, it seems possible that this was a courting pair. On examination the stomach was found to exclusively contain the seeds of a relatively large-seeded unknown species of fig (*Ficus* sp.). No insect remains were present. The female was not obviously pregnant.

Subsequently, during long-term studies between 1995 and 1997 at the Lago Caiman research camp (13º36'S, 60º55'W) in Noel Kempff Mercado National Park, we twice observed feeding signs and tracks of *Priodontes* under fruiting *Ficus* sp. trees. These were both free-standing and relatively large-fruited species.

These observations suggest that, although primarily insectivorous (Redford, 1987; Silveira *et al*., 2009; Superina & Abba, 2010), fruit also forms part of the *Priodontes* diet. Indeed, Barreto *et al*. (1985) reported that 300 seeds of an unidentified plant were found

in one of three *Priodontes* stomachs examined in Colombia. Figs are considered to be important 'keystone resources' for a large diversity of frugivorous vertebrates across the Neotropics due to their local abundance in some forests and their tendency to fruit at times of relative resource scarcity (Terborgh, 1983, 1986; Peres, 1994), however it seems unlikely that figs represent such a 'keystone resource' for the primarily insectivorous *Priodontes.*

Fruit may represent a predominantly seasonal food choice for this species, as has been described for another previously presumed strict myrmecophage specialist, the southern three-banded armadillo (*Tolypeutes matacus*) in the Argentinean Chaco. This species became more frugivorous during the wet season when fruit availability was apparently greatest and one examined stomach (n=63) was found to contain 98% of one fruit species, *Ziziphus mistol* (Bolkovic *et al*., 1995). It is also possible that there are geographic variations in giant armadillo diet and that fruit is not always an important dietary element. For example, the widely distributed nine-banded armadillo (*Dasypus novemcinctus*) is known to vary in the degree of myrmecophagy, with North American populations far more omnivorous than those in Amazonia (Redford, 1986).

In short, these observations further demonstrate that *Priodontes* at least occasionally consume fruit (Barreto *et al*., 1985) including figs, and further research is warranted on the diet and ecology of this threatened large mammal.

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