

Predation of the Yellow-billed Cardinal (*Paroaria capitata*) by the Purplish Jay (*Cyanocorax cyanomelas*) in the Pantanal region, Mato Grosso do Sul, Brazil.

Predação de cavalaria (*Paroaria capitata*) pela gralha azul (*Cyanocorax cyanomelas*) na região do Pantanal, Mato Grosso do Sul, Brasil.

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Resumo Relata-se aqui um evento de predação de um indivíduo adulto de cavalaria (*Paroaria capitata*) pela gralha azul (*Cyanocorax cyanomelas*) na Base de Estudos do Pantanal, Mato Grosso do Sul, Brasil. Este é o primeiro relato de predação de vertebrados pela gralha azul na literatura.

Palavras-chaves: *Cyanocorax cyanomelas*, *Paroaria capitata*, Predação.

Abstract We report a predation event of an adult Yellow-billed Cardinal (*Paroaria capitata*) by Purplish Jay (*Cyanocorax cyanomelas*) in the Base de Estudos do Pantanal, Mato Grosso do Sul, Brazil. This is the first report of vertebrate predation by Purplish Jay in the literature.

Keywords: *Cyanocorax cyanomelas*, *Paroaria capitata*, Predation.

The jays of the genus *Cyanocorax* are omnivorous species, including mainly fruits and arthropods in their diets, and opportunistically incorporate vertebrates as preys (Schubart *et al.* 1965, Sick 1997). Reports about predation of lizards for *C. cristatellus* (França and Braz 2009), frogs and bird nestlings for *C. chrysops* (Uejima *et al.* 2009), and *C. cristatellus* (França *et al.* 2009) indicated that the presence of vertebrates in the jay's diet could be more frequent than suggested.

On 26 September 2012 it was observed the predation of an adult Yellow-billed Cardinal (*Paroaria capitata*) by a Purple Jay (*Cyanocorax cyanomelas*) in

the Base de Estudos do Pantanal (BEP; 19°34'36" S e 57°01'09" W) in Pantanal wetlands, Mato Grosso do Sul state, Brazil. Some individuals of Purple Jays were foraging in the ground with other species, including some individuals of Yellow-billed Cardinal. During foraging, a jay attacked one cardinal and flew away to a tree taking it in its beak. The jay began removing the cardinal feathers with its beak, with some attempts to pull off the cardinal legs, pecking vigorously on the head, and swallowing some pieces of meat (Figure 1). Other jays tried unsuccessfully to steal the prey. Finally, the jay flew away with its prey in its beak and has not been viewed yet. This record represents the first report of predation by the Purplish Jay on vertebrates in the literature. In their revision, Lopes *et al.* (2009) cited the Purplish Jay eating meat (carrión or biltong), but not an active intake of meat by a predation act.

A condition that could have facilitated this predation event is the fact that the BEP staff provides a daily food supply that attracts dozens of birds, placing the predator and prey together in close proximity (Pizo 2008). Pizo (2008) observed similar behavior by the Chopi Blackbird (*Gnorimopsar chopi*) preying on a young individual of Yellow-billed Cardinal at the same place (BEP), asserting that the event occurred at the peak of the dry season in the Pantanal, where low resource availability may have induced predatory behavior in Chopi Blackbird. As our event occurred in the end of dry season, the low food availability may be also induced predation by the jays. More investigation are necessary to scale the role of small vertebrate predation in the Purplish Jay diet, and if this events occurs in a seasonal way. Further, the Yellow-billed Cardinal was the prey in the two attacks recorded in BEP, suggesting that its abundance or behavior can enhance the vulnerability of the species to predation.



Figure 1 Predation of Yellow-billed Cardinal (*Paroaria capitata*) by the Purplish Jay (*Cyanocorax cyanomelas*) in the Pantanal, Mato Grosso do Sul state, Brazil.

Acknowledgements

We would like to thank the Programa de Pós-Graduação em Ecologia e Conservação (PPGECO) of Universidade Federal do Mato Grosso do Sul (UFMS) that organized the ECOPAN (Pantanal Ecology Field Course) and the BEP staff for logistical and financial assistance during the field work.

References

- França FGR, Braz VS (2009) Predation on the lizard *Polychrus acutirostris* (Squamata, Polychrotidae) by the curl-crested jay *Cyanocorax cristatellus* (Aves, Corvidae) in the Cerrado of Central Brazil. **Biotemas** 22: 243-245.
- França LF, Sousa NOM, Santos LR, Duca C, Gressler DT, Borges FJA, Lopes LE, Manica LT, Paiva LV, Medeiros RCS, Marini MÂ (2009) Passeriformes: nest predators and prey in a Neotropical Savannah in Central Brazil. **Zoologia** 26: 799-802.
- Lopes LE, Fernandes AM, Marini MÂ (2005) Predation on vertebrates by Neotropical passerine birds. **Lundiana** 6: 57-66.
- Pizo MA (2008) An apparent instance of predation on a Yellow-billed Cardinal (*Paroaria capitata*) by the Chopi Blackbird (*Gnorimopsar chopi*). **Revista Brasileira de Ornitologia** 16: 264-265.
- Schubart O, Aguirre AC, Sick H (1965) Contribuição para o conhecimento da alimentação das aves brasileiras. **Arquivos de Zoologia** 12: 95-249.
- Sick H (1997) **Ornitologia Brasileira, edição revista e ampliada por José Fernando Pacheco**. Rio de Janeiro: Editora Nova Fronteira.
- Uejima AMK, Boesing AL, Anjos L (2012) Breeding and foraging variation of the Plush-Crested Jay (*Cyanocorax chrysops*) in the Brazilian Atlantic forest. **The Wilson Journal of Ornithology** 124: 87-95.