

Predation of a Buff-banded Rail *Hypotaenidia philippensis* by Australian Ravens *Corvus coronoides* on Penguin Island, Western Australia

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Abstract. Australian Ravens *Corvus coronoides*, although primarily scavengers, are known to prey on large vertebrates, which can detrimentally affect the prey populations. This paper describes an Australian Raven attacking and killing a Buff-banded Rail *Hypotaenidia philippensis* on Penguin Island, Western Australia, in the presence of several other Ravens.

Introduction

Australian Ravens *Corvus coronoides* have been characterised as omnivorous scavenger-predators, with up to 60% of their diet consisting of flesh (Rowley & Vestjens 1973). Despite their scavenging prowess, they are known to both attack and kill live prey, including newborn lambs *Ovis aries*, lizards (skinks Scincidae and dragons Agamidae) (Rowley & Vestjens 1973) and young Rabbits *Oryctolagus cuniculus* (Mykutowycz *et al.* 1959), as well as other birds (Rowley & Vestjens 1973; Lepschi 1994; Marchant *et al.* 2006; Mo 2017). They are also well known for depredating nests of birds for both eggs (Stevenson 2011; Rees *et al.* 2015) and nestlings (Rowley & Vestjens 1973; Baxter 1988; Dorfman & Read 1996). As described by Rowley (1969), this species has several methods of using its beak when attacking prey, including ‘picking’—where the Raven usually assumes a sure-footed position on the victim and, with closed beak, violently ‘picks’ at the prey. Here I present a field observation from Penguin Island, Western Australia, of a juvenile Raven attacking and killing a Buff-banded Rail *Hypotaenidia philippensis* in the presence of another juvenile and two adult Ravens.

Study site

Penguin Island (−32.305658°S, 115.691089°E) is located in the Shoalwater Marine Park 50 km south of Perth, Western Australia, and ~600 m off the coast of Rockingham, in a chain of limestone islands that separated from the mainland c. 5000–8000 years ago (Playford 1988; DEC 2006). It has been managed as a Class A nature reserve since 1990, but still retains much of its recreation heritage, attracting up to 90 000 visitors each year (Hughes 2012). It is home to many bird species, including a breeding colony of Little Penguins *Eudyptula minor*, and Australian Pelicans *Pelecanus conspicillatus*, Bridled Terns *Onychoprion anaethetus*, Silver Gulls *Chroicocephalus novaehollandiae* and Buff-banded Rails. Australian Ravens are present on Penguin Island, but currently appear to be limited to a single resident family group that roosts in the Rottnest Teatrees *Melaleuca lanceolata* and Norfolk Island Pines *Araucaria heterophylla* surrounding the grassed picnic area (E. Clitheroe pers. comm.).

Observation

The observation took place on the grassed area near the Visitors’ Centre on Penguin Island on 30 November 2017 at c. 0900 h. A juvenile Australian Raven was observed holding in its beak a live Buff-banded Rail by the neck before using a foot to grasp and push the Rail to the ground. About 30 minutes earlier, four Ravens (two adults and two juveniles) were perched in *Melaleuca* tree branches ~2 m above the ground, surveying the open grassed area. It is unknown if the predating Raven came to ground specifically for the Rail, or if it was foraging on the ground before the attack. The Rail managed to struggle free and temporarily escape under the boardwalk ~0.5 m away. The predating juvenile Raven, along with the other juvenile and one of the two adults, pursued the fleeing Rail. Within 1 minute, one juvenile Raven grasped the Rail’s neck with its beak and dragged the live Rail back to the grassed area. The Raven pushed the Rail to the ground, stood on it with both feet, and repeatedly ‘picked’ at its body for 30–60 seconds until it stopped moving (Figure 1). The other Ravens watched from ~30 cm away but were not involved in the killing.



Figure 1. Juvenile Australian Raven standing on the Buff-banded Rail just after ‘picking’ the Rail to death. Photo: J.I. Barr

After the Rail's death, the second juvenile Raven pecked at the carcass several times, with the first juvenile still standing on the Rail. One adult Raven attempted to drag the carcass away from the juvenile, resulting in the juvenile pecking and kicking at the adult, causing it to release its grip on the carcass. The juvenile that killed the Rail fed for c. 5 minutes on the carcass, with the other Ravens also intermittently picking at the body.

Discussion

Although Australian Ravens on Penguin Island have been observed feeding on carcasses of other birds, including Buff-banded Rails (pers. obs.), this is the first description of this species attacking and killing a Buff-banded Rail there (E. Clitheroe pers. comm.). Australian Ravens are known to attack and kill other bird species (Rowley & Vestjens 1973; Lepschi 1994; Mo 2017). Buff-banded Rails are frequently observed crossing and foraging on the open grassed area of Penguin Island (pers. obs.), particularly in the morning before the Island is open to the public. At this time of day, Australian Ravens are known to perch and actively scan their territory for potential food (Rowley 1973). On Penguin Island, they have previously been observed attacking and killing live Little Penguin fledglings (E. Clitheroe pers. comm.) and, elsewhere, similar behaviour has been reported on other bird prey species, including Spotted Dove *Streptopelia chinensis* and Blue Bonnet *Northiella haematogaster* (Marchant *et al.* 2006).

Despite being primarily scavengers, Australian Ravens are capable of killing potential prey (Rowley & Vestjens 1973; Marchant *et al.* 2006; Mo 2017), and predation by ravens has been considered to negatively impact some populations of native fauna (Stevenson 2011; Madden *et al.* 2015; RIA 2015). Ravens are highly intelligent and are known for their adaptability toward novel environments (Emery & Clayton 2004; Sol *et al.* 2005). Currently on Penguin Island, the Australian Raven population is limited to a single family group. Although it is considered unlikely that this single family group could exert significant negative impacts on the native bird populations here, this observation highlights the Ravens' adaptability in acquiring food, and could indicate potential impacts associated with any future increase in the Island's population of this species, which should be closely monitored.

Acknowledgements

I thank Erin Clitheroe and Melissa Evans from the Department of Biodiversity, Conservation and Attractions for additional information, as well as Bill Bateman for his encouragement to publish this observation.

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Received 26 March 2018, accepted 17 October 2018,
published online 27 June 2019

