

SHORT COMMUNICATIONS

ORNITOLOGIA NEOTROPICAL 23: 287–290, 2012
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PARASITISM AND JOINT INCUBATION OF UPLAND GOOSE (*CHLOEPHAGA PICTA*) NEST BY YELLOW-BILLED PINTAIL (*ANAS GEORGICA*)

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Parasitismo y incubación conjunta del nido de Cauquén Común (*Chloephaga picta*) por Pato Maicero (*Anas georgica*).

Key words: Anatidae, Argentina, interspecific nest parasitism, Patagonia, waterfowl.

Nest parasitism is a relatively uncommon but well-studied reproductive strategy in birds. About 1% of bird species are known to deposit their eggs in the nests of other species (Payne 1977). Intraspecific parasitism, which can be difficult to detect, is even more taxonomically widespread (Yom-Tov 1980, 2001; MacWhirter 1989, Rohwer & Freeman 1989, Petrie & Moller 1991). Laying eggs in the nests of other birds and exploiting the parental care of other individuals can offer advantages to the parasite, such as enhanced fecundity and the avoidance of predation and energetic costs associated with incubation and brood care, or eliminate constraints associated with building a nest (Sorenson 1992, 1997). Parasitism can also serve as 'best-of-a-bad-job', alternative reproductive strategy

when an individual's ability to nest in a typical manner is limited or curtailed by poor environmental conditions (Sorenson 1991, 1993). Additionally, the host may benefit if the cost of raising parasitic young is not great, as is the case in precocial species (Rohwer & Freeman 1989) and the presence of parasitic young in amalgamated broods dilutes predation on the host offspring (Munro & Bedard 1977, Lank *et al.* 1989, 1991, Eadie & Lumdsen 1985, Eadie *et al.* 1988). Nest parasitism has thus been shown to be a regular and flexible feature of the nesting biology of many different species, having evolved in different ecological contexts with various proximate and historical factors (Eadie *et al.* 1988, Lyon 1993, Sorenson 1993, Arnold & Owens 2002).

Here we report the first record of nest parasitism by the Yellow-billed Pintail (*Anas georgica*), a dabbling duck species endemic to South America. Nest parasitism is common in waterfowl (Weller 1959, Joyner 1976, Andersson & Eriksson 1982, Eadie *et al.* 1988, Lank *et al.* 1989, Sorenson 1991, Yom-Tov 2001), yet due to a scarcity of studies in the region few records of this type of behavior have been reported for South American waterfowl (Eadie *et al.* 1988, Yom-Tov 2001; but see Gibson 1920). Our finding also is noteworthy because what initially appeared as a parasitic egg-laying event to the observers was likely a case of joint incubation and competition for the nest site, resulting in the expulsion of partially incubated eggs and cracked eggs within the nest bowl.

On 1 November 2011, we observed a Yellow-billed Pintail and Upland Goose (*Chloephaga picta*) sitting on the same nest bowl (Fig. 1A) in a flooded pasture at Estancia Bella Vista, near Sarmiento, Chubut, Argentina (45.60°S, 68.99°W). Upon approaching the nest, the Yellow-billed Pintail and Upland Goose flushed together for a short period of flight (Fig. 1B). The nest contained five Upland Goose eggs and four pintail eggs; a sixth Upland Goose egg was displaced 30–40 cm outside the nest bowl (Fig. 1C). Two of the pintail eggs were cracked. The nest appeared to have been constructed by the Upland Goose because it contained Upland Goose down. The age of the developing embryos was estimated following Weller (1956). The Upland Goose eggs were partially incubated to > 4 days but < 8 days, whereas the pintail eggs appeared to be freshly laid; the nest was warm. We observed the females near the nest site three times subsequently the same day. The pintail was on the nest during the first two revisits, whereas the Upland Goose was on the nest during the third revisit. The following morning we revisited the nest a fourth time. The pintail was on the

nest and the Upland Goose was nearby. At this time, the nest was again inspected; a second Upland Goose egg was displaced to the water a meter away from the nest bowl, and one of the four pintail eggs was missing and not relocated.

This observation represents the first published record of interspecific nest parasitism by Yellow-billed Pintail. Neither intra- nor interspecific nest parasitism is expected to be uncommon in Yellow-billed Pintail or any other waterfowl species. However, this event was unusual in several respects. Both the pintail and the Upland Goose appeared to incubate the nest at the same time in what might be characterized as a joint incubation/laying event, and the pintail clearly visited the nest repeatedly to lay at least four eggs. This stands in contrast to typical visits by nest parasites, which have revealed through time-lapse photography that intruding female Redhead ducks (*Aythya americana*) and Canvasbacks (*Aythya valisineria*) visit the nest for only a short period of time, typically less than ten minutes (Sorenson 1991, 1993). We were not ultimately able to determine the fate of the nest because of time constraints on our visit to the region. In this case, the Upland Goose had constructed its nest at an ideal site in flooded pasture where pintails were common and abundant. Additionally, the smaller species, the Yellow-billed Pintail, laid its own eggs and ejected the partially incubated eggs from the nest of the larger species, the Upland Goose.

ACKNOWLEDGMENTS

We thank the owners of Estancia Bella Vista. Pablo Tubaro, Cecilia Kopuchian, Adrián Di Giacomo, and Ana Huespe assisted with logistical support. Alan Jones from the Dirección de Fauna y Flora Silvestre del Chubut granted a research permit to study waterfowl. Two anonymous reviewers provided helpful



FIG. 1. Photographs showing (A, top) nest simultaneously occupied by Yellow-billed Pintail and Upland Goose, (B, middle) females flushing together, and (C, bottom) nest bowl containing eggs of both species on the first visit to the nest site at Estancia Bella Vista, Chubut, Argentina.

comments on the manuscript. Funding was provided by the National Science Foundation (IOS-0949439).

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Accepted 22 April 2012.