

## A RECORD OF INTERSPECIFIC KLEPTOPARASITISM BY AN AUSTRALIAN PASSERINE, THE BLACK-FACED WOODSWALLOW *Artamus cinereus*

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Interspecific kleptoparasitism is an uncommon behaviour for passerines, and Brockmann and Barnard (1979) list only one Australian passerine, the Australian Raven *Corvus coronoides*, as an observed kleptoparasite. Since Brockmann and Barnard's (1979) review, Robinson (1993) reported Dusky Woodswallows *Artamus cyanopterus* stealing prey from smaller passerines and Bamford (*in litt.*) observed Black-faced Woodswallows *A. cinereus* stealing grasshoppers from Magpie-larks *Grallina cyanoleuca*. Clancy (1983; pers. comm.) considered the association of Spangled Drongos *Dicrurus bracteatus* with cuckoo-shrikes *Coracina novaehollandiae* and *C. papuensis* in north-eastern New South Wales during autumn and winter was based on food piracy with the drongos stealing from the cuckoo-shrikes. Although drongos were observed to pursue cuckoo-shrikes that had food in their bills, instances of food being stolen were not observed. These observations indicate that interspecific kleptoparasitism occurs among Australian passerines, but it is not common.

In more than 48 000 recorded prey attacks of foraging passerines and countless field hours in Australian woodlands from 1979 to 2003 (e.g. Recher *et al.* 1985; Recher and Davis 1997, 1998, 2002, unpubl. data), we never observed interspecific kleptoparasitism. This includes more than 600 observed prey attacks by woodswallows *A. cinereus*, *A. superciliosus*, *A. minor*, *A. leucorhynchus*, and *A. cyanopterus* in a variety of shrub, woodland and forest habitats in eastern and western Australia. Woodswallows use a variety of foraging behaviours, including ground-pouncing, hawking (sallying), aerial sweeping, and snatching, with prey usually consisting of relatively large insects taken from the ground, foliage, bark and air, but ground-pouncing and aerial sweeping are the most frequently used behaviours (see Recher *et al.* 1985; Recher and Davis 1997, 1998, 2002). Here we report an example of interspecific kleptoparasitism by Black-faced Woodswallows.

During August 1999, while studying the foraging behaviour of birds in *Acacia* woodlands (Mulga) near Mt Magnet (28°05'S, 117°52'E) in the Murchinson District of Western Australia, we observed Black-faced Woodswallows stealing lepidopteran larvae from ground-foraging Crimson Chats *Epthianura tricolor*. Using the same procedures as Recher and Davis (1997, 1998) (i.e. up to five consecutive prey attacks for each bird encountered were recorded, the first observed prey attack was omitted; data were collected from a maximum of half the individuals in a flock), we recorded 60 attempts at prey capture by approximately 20

woodswallows and 66 by approximately 12 chats while both were associated in mixed species foraging flocks (Davis and Recher 2002). Twenty-seven (45%) of the prey attacks by woodswallows were birds pouncing from perches to take prey on the ground. Of these, three (11%) were attempts to steal prey from chats, two of which succeeded. The same woodswallows also hawked flying insects from the air (n = 25; 41% of prey attacks), gleaned prey from the ground and ground vegetation (n = 4; 7%), and snatched prey from ground vegetation (n = 4; 7%). A variety of insects was taken, including the same types and sizes of caterpillars stolen from chats.

Several other instances of kleptoparasitism of chats by woodswallows at Mt Magnet were observed, but not recorded, as they fell outside our research protocols (see above). In all instances of kleptoparasitism, a chat had taken a larva from the ground or ground vegetation with a woodswallow either snatching the prey from the chat or pursuing the chat briefly until the item was dropped, after which the woodswallow would pick it up. The instances of interspecific kleptoparasitism by Dusky Woodswallows reported by Robinson (1993) were also directed against birds foraging on or near the ground, as were Bamford's observations of woodswallows stealing from Magpie-larks.

At Mt Magnet, woodswallows and chats took lepidopteran larvae from the ground and ground vegetation. Larvae appeared abundant and easily located by chats, woodswallows and other insectivorous passerines: approximately 900 prey attacks were recorded for insectivorous birds at Mt Magnet. Of the 53 arthropods taken that could be identified, successful identification being a function of prey size and visibility, 51 were lepidopteran larvae. Admittedly this is a crude measure of abundance, but it raises the question as to why, with abundant large prey available, some prey were stolen.

Brockmann and Barnard (1979) suggested several conditions, which might favour interspecific kleptoparasitism, including large numbers of hosts, abundant and/or high quality food, predictable behaviour of hosts, visible food, and food scarcity. They also suggested that interspecific associations, including mixed species foraging flocks, might lead to kleptoparasitism. Etterson and Howerly (2001) reported interspecific kleptoparasitism by Loggerhead Shrikes *Lanius ludovicianus* on soil-foraging passerines and suggested it occurred because it gave the shrikes access to prey which were of high quality, large, and otherwise unavailable (i.e. soil invertebrates). Llambras

*et al.* (2001) concluded that interspecific kleptoparasitism by the Greater Kiskadee *Pitangus sulphuratus* occurred in response to large, high quality prey, which were otherwise not available and where the host behaviour was predictable. Kiskadees appeared to follow the host species as they foraged and stole prey as it was being handled in a manner analogous to Clancy's (1983) observations of drongos and cuckoo-shrikes in north-eastern New South Wales.

While some of these conditions pertain to the theft of food by Black-faced Woodswallows from Crimson Chats at Mt Magnet (i.e. food and hosts were abundant, and the prey stolen were large and of high quality), kleptoparasitism did not appear to give the woodswallows access to food which was otherwise unavailable or larger and of better quality than they were able to capture themselves. Robinson (1993) reported that it appeared that the Dusky Woodswallows he observed stealing food from other species 'monitored' the activities of ground-foraging birds and attacked when prey were taken. The woodswallows we observed at Mt Magnet did not appear to be following the chats, other than as members of the same mixed-species foraging flocks. Instead, we suggest that the woodswallows simply responded to the sight of prey captured by chats in the same way they responded to prey they located independently; in other words, the instances of kleptoparasitism we observed were examples of opportunistic behaviour.

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