

# Display behaviour by Sharp-tailed Sandpipers *Calidris acuminata* at Tolderol Game Reserve Wetlands in January 2022

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## INTRODUCTION

Little is known about the breeding behaviour of Sharp-tailed Sandpipers *Calidris acuminata* apart from the fact they are polygynous and that males make elaborate display flights and calls on their northern hemisphere breeding grounds. That behaviour would not be expected among over-wintering birds in Australia. Yet Backen (1958) provided a comprehensive description of what he assumed was courtship behaviour and apparent coition by Sharp-tailed Sandpipers on a beach near Seaholme, western bayside Melbourne, during the period 8 January to 9 February 1957. In this note I illustrate the behaviour described by Backen that I observed at Tolderol Game Reserve Wetlands (GRW) on 12 January 2022 and briefly consider whether the behaviour represents courtship, aggression, or something else.

## OBSERVATION

Like numerous visitors to Tolderol GRW in January 2022, I observed the three displays by Sharp-tailed Sandpipers described by Backen (1958). His display 1 is described as follows:

The displaying bird held its body in a tense and semi-erect posture with its neck craned forward and its bill pointing diagonally downwards. Feathers of the back were raised from the body—like many brown barbs projecting backwards from its skin; and on occasions the throat appeared to be inflated, perhaps due to a similar erection of the plumage. The wings were held stiffly drooped, the primaries extending below the body. In a few displays of this type, the tail was noted to execute rapid lateral vibrations.



**Figure 1.** (Time: 11.39.35). Backen's display 1 with the displaying bird approaching an individual who runs off. All images Colin Rogers



**Figure 2.** (Time: 11.40.02). The displaying bird finds a more compliant partner.



**Figure 3.** (Time: 11.40.11). Displaying bird mounts the compliant partner.

This behaviour is illustrated in Figure 1, in which the bird subjected to the display was running away.

The two additional behaviours described by Backen (displays 1a and 2) were also observed as part of the activity in Tolderol GRW on 12 January 2022. Figure 2 illustrates a variation similar to Backen's display 1a which '... differed [from display 1] only in that the tail was erected vertically and the tail-feathers were spread in a

fan. As in display (1) the bird occasionally shook its tail rapidly side to side.' However, in this case the displaying bird had only its tail raised and fanned, not the feathers of the back, while the bird that was the object of the display did not run off but remained stationary with the feathers on the back of the neck partially raised (Figure 2).

Backen (1958: 270) also observed another behaviour that he interpreted as an act of attempted coition. Key features of the activity involved raised wings by the presumed male as it mounted the back of the presumed female. In the incident described here the displaying bird in Figure 2 mounted the compliant bird in the fashion described by Backen and illustrated in Figure 3.

In addition to the activity between the two participants, Backen also noted that it drew the attention of other Sharp-tailed Sandpipers, attracting two passive observers. In the case described here the activity attracted significant attention with the numbers of passive observers rising rapidly as illustrated in Figures 4 and 5. By the time the displaying bird dismounted the crowd of passive observers had grown to 18 with most having flown in from some distance away.

After the displaying bird had dismounted, all the individuals dispersed and returned to feeding or loafing. The sequence of events illustrated in Figures 1 to 5 took place in one minute and 13 seconds.

## DISCUSSION

It is not unusual to occasionally observe Sharp-tailed Sandpipers during their time in Australia engaged in behaviour described by Backen (1958) as display 1, even as early as October–November (pers. obs.). Pringle (1987: 325) briefly described the display as ‘apparently associated with courtship’; although not cited in the text, Backen (1958) is in Pringle’s index and is presumably the basis for this information. Higgins and Davies (1996: 297) also note that Sharp-tailed Sandpipers are:

Occasionally seen in display during non-breeding months, with two birds chasing each other: in main display, adopt semi-erect posture with feathers of back and throat raised, wings stiffly dropped, and tail sometimes held vertically, fanned and vibrated sideways; second display involves same actions but with wings raised and arched, and wings, head and tail jerked up and down.

However, although Backen’s display 1 is not uncommon, it is unusual to see it followed by the displaying bird mount another bird. Sometimes the displaying bird is confronted and backs off as described below or, more usually, the targeted bird simply runs off as in Figure 1. In that respect, Danny Rogers (pers. comm.) makes several salient points about the behaviour described by Backen.

First, because one bird mounted another, Backen simply assumed that he was observing courtship behaviour followed by an act of coition. However, it is very difficult to separate aggression from courtship and to establish that an act of coition has occurred without first

establishing the sexes of the birds involved.

Second, the Sharp-tailed Sandpiper is a polygynous species like the Ruff *Calidris pugnax* and, in the latter, cases of male Ruff mounting other males have been recorded. Third, in shorebirds, sperm can only be stored by females for up to 10 days so it is unlikely that successful coition would be observed in January in Australia and birds would be unlikely to expend energy in attempting this.

The behaviour illustrated in Figure 1 certainly appeared to involve aggression, judging by the reaction of most birds at which it was directed. A behaviour that appears to be an example of rebuffed aggression, but not recorded by Backen (1958), was shown in a video taken by Graham Moore (posted on Facebook, South Aussie Birding, 25 January 2022) also at Tolderol GRW. The aggressor exhibited Backen’s (1958) display 1 augmented by sometimes raised wings, as described by Higgins and Davies (1996), and it chased the second bird in circles for 10 seconds before that bird turned the tables, raised its tail and advanced on the initial aggressor who immediately stopped its initial display and ran off, chased by the chattering ‘victim’ now turned aggressor. That activity attracted the attention of a single passive observer.

However, in the case illustrated in Figure 2, aggression does not appear to be involved as the passive bird allows mounting to occur (Figure 3). It is tempting to speculate that it may be either a heterosexual encounter as Backen (1958) assumed, or a homosexual encounter with males practising coition or dominating other compliant or less aggressive males. Without definitive sexing of the participants, it is difficult to be sure.

Rogers (1995) provided measurement criteria for unambiguously sexing about 80 per cent of Sharp-tailed Sandpipers in the hand, but identification of sexes in the field requires experience and is not definitive. Generally, male Sharp-tailed Sandpipers are larger and bulkier than females. That said, the birds in Figures 2



**Figure 4.** (Time: 11.40.18). Two Sharp-tailed Sandpipers approach as a chattering Pied Stilt *Himantopus leucocephalus* walks past.



**Figure 5.** (Time: 11.40.48). Dismounted bird with tail still raised and the pair surrounded by 18 passive onlookers before the group dispersed.

and 3 are both of similar size which suggests they are the same sex and, based on relative size, are probably male (Danny Rogers pers. comm.).

## CONCLUSION

The behaviour recorded by Backen (1958) and reported here may therefore be aggression or some other interaction between males, rather than courtship behaviour. It may involve elements of aggression as part of a display that may not be limited to heterosexual encounters. When observing such encounters, a careful attempt should be made to sex the birds involved, including the passive onlookers.

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## REFERENCES

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