

**'SWARMING' OF WHITE-BREASTED WOODSWALLOWS.** From 1972 to 1980 a number of articles appeared in the *Australian Bird Watcher* on the clustering and huddling of woodswallows (e.g. Bourke 1972; Hobbs 1972). Sharland (1972), quoting Chisholm, concluded that all species of Australian woodswallows "cluster in a big swarm at times, much in the manner of honey bees. All mixed together and clinging to one another...but I believe the massive clustering is rare...(and) mostly at night." Cooper (1972) quotes a description from Coleman of an observation of Dusky Woodswallows *Artamus cyanopterus* clustering at 2000 h in February 1944 with about 80 birds in a cluster "like a swarm of bees. They suggested a...cluster of sawfly larvae. Some were head up, others head down, while the rest clung horizontally or at varying angles, so that the tail and wings protruded like spines of an echidna."

Our observation was of White-breasted Woodswallows *A. leucorhynchus* swarming to roost at the Edith Falls camping ground (14°15'S, 132°15'E) approximately 40 km NW of Katherine, Northern Territory. The weather conditions were mild and still during the day and overnight. At 1815 h on 4 July 1981 eighty to one hundred White-breasted Woodswallows swarmed in a 5 m high tree that overhung our campervan. They formed a tight smooth mass, based on four horizontal leafless branchlets, each about 15 cm long, on either side of a vertical branchlet several centimetres long. The birds rapidly settled and remained silent and still until we retired to bed two hours later.

Next morning at 0620 h we heard the first dawn bird calls from six species and at 0640 h there were a few twitterings from the woodswallow mass, followed by a barely perceptible shiver

through the mass. After five minutes of silence and stillness, there were a few more twitterings and a few tails moved. Five minutes later there was an explosion of birds upwards and outwards, like the sudden movement of a bee swarm. Within a few seconds the birds had disappeared to the west in a rapidly moving tight group. At 0710 h the birds returned, flying in a scattered flock.

Many authors have speculated on the reason for the clustering behaviour of woodswallows. Most assume that the behaviour helps to minimise body heat loss due to radiation by reducing the body area exposed per animal (e.g. Vincent 1975). This hypothesis seems reasonable when the weather conditions are cold or inclement, but birds sometimes exhibit this behaviour in mild weather. Bourke (1972) observed clustering of several species of woodswallows in New South Wales and decided that, in daylight hours, clustering appeared to be influenced by cloudy and windy conditions. Perhaps clustering is an adaptive mechanism from an earlier and colder geological time and the behaviour is still manifest despite no longer being necessary.

#### REFERENCES

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 C.B. and E.M. Ashton: 218 *The Aldinga Esplanade, Aldinga Beach, S.A. 5173.*

Received 22 March 1996; Accepted 13 Jan. 1997