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BIRD OBSERVATION

WILSON'S STORM PETRELS MATING AND RESTING ON ANTARCTIC ICE-BREAKER

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Wilson's Storm Petrels (*Oceanites oceanicus*) are known ship followers, and breed from March to May in ice-free areas on Antarctic coastlines and nearby islands during the austral summer (Hockey et al. 2005). The species was only seen at the ice shelf on the Princess Martha Coast, Antarctica, during Voyage 18 of the ice-breaker MV S.A. Agulhas II from Cape Town, South Africa. Upon arrival at Penguin Bukta (70°15.77'S, 02°42.88'W) on the early morning of Wednesday 16 December 2015, the ship proceeded through a polynya to the 28 m high ice shelf to commence offloading cargo destined for the SANAE IV Station. Under a 24 h ambient light regime, a number of Wilson's Storm Petrels was clearly interested in the foredeck of the ship, flitting and hovering about primarily from the early afternoon to late evening (when opportunistic observations usually ceased) in the 3-day period ending noon on Saturday 19 December when the ship departed westward to Atka Bay (70°30.54'S, 08°10.93'W).

What attracted the birds to the ship appeared to be (a) two identical free-standing 25,000 litre dark blue painted fuel tanks which had been placed on the foredeck, (b) the raised platform mid-ships with a large circular yellow painted target area (5 m in diameter) for depositing cargo by crane, and (c) the red railing of the ship which stood out against the green background of the ship's decks and predominantly white super structures. Time budget calculations based on 20 scans (Altmann 1974) at 5 min apart, of one to seven birds present over a 1.5 h period (21:00 - 22:55 local apparent time,

interrupted by 20 min when the ship moved some distance away from the shelf) on 18 December, showed that the birds were airborne 74.3% of the time over the foredeck, settling on the blue tanks (23.1%), yellow painted circle (1.3%) and red railing (1.3%) for relatively short periods.

The attraction of the yellow and red painted structures is not entirely surprising, as orange and red objects are attractive to feeding Wilson's Storm Petrels (Harper 1979) while the attraction to the blue painted fuel tanks in particular, and later to a structure covered by blue PVC canvas (see below), is unclear. However, the tank colour resembled that of the sea surface waters surrounding the ship, and this might have played a role. The birds settled primarily on the small strip of negotiable upper surface of the round tank, and on some occasions on the strip of catwalk set onto the upper part of the frame holding the tank. On the previous day, 17 December, one bird was observed sitting on the one tank's catwalk, while three other birds on the tank were presumably interacting aggressively (circling, with spread wings and apparently vocalising), one of which either chased one other away or followed it on more than one occasion. On 20 December, while at Atka Bay, one bird, viewed through a passenger cabin porthole, sat on the starboard outside passage against the ship's green painted bottom guard skirting, pecking away at the 8.5 cm high structure. It was soon joined by another bird, and after what initially seemed to be aggressive interaction, the arriving bird mounted its partner for about 60 sec. Afterwards, they preened each other, before both took off.

On 21 December, four birds were flying around at 19:15, when two landed on the deck where the two fuel tanks were located before their removal onto the low ice shelf of Atka Bay earlier in the morning. The birds shuffled around for a few minutes, before taking off again.

On 22 December, a number of birds variously landed on the deck usually on the area where the fuel tanks used to stand, while the ship



was stationary (stuck in the ice, at 70°28.89'S, 08°12.48'W) during early evening around 20:00. What ensued appeared to be courtship behaviour, one individual remained on deck (presumably female) in a submissive posture while the other individuals (presumably males), vied for the attention of the presumed female. The dominant male joined the presumed female on deck displaying assertively, with accompanying vocalisations. Other suitors circled the pair on deck and made sweeping dives at the assertive individual. While the pair was still in the line of sight, no mating took place. After about 35 min the pair moved out of sight against the superstructure, and they may have mated there. Over this 2 h observation period, at least five birds were involved, the presumable female spending approximately 89% of time on the deck, and airborne over the foredeck for 11% of time.

Blue PVC canvas covers to the foredeck winches sheltered an unknown number of birds that could be heard vocalising (soft peeping noises) at 23:00 on the same day. The following evening, around 23:15, one storm petrel landed and scurried under the sheeting, but flew off when disturbed at midnight. By 24 December 2015, the Wilson's Storm Petrels had abandoned the ship, after being a daily feature since arrival at the ice shelf, as it pushed its way through consolidated pack ice at 69°58.66'S, 09°02.87'W towards the north.

The ship probably provided an attractive, sheltered substrate to interact, court, mate and rest in the late afternoon and evening in the present study, before the ship presumably moved out of the foraging range of the summer population of birds on the Antarctic coastline.

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