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Intraspecific Aggression and Nest-Site Tenacity by European Starlings

by

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Introduction

Most authors consider the European Starling (*Sturnus vulgaris*) to exhibit minimal territorial defence. Bent (1950) reported that starlings frequently construct nests in close proximity to each other with no signs of aggression and that they occasionally nest colonially or semi-colonially. He did, however, cite two instances of aggression during feeding. Feare (1984) concluded that starlings were not territorial and that they frequently nested colonially with much social

interaction. In his study area (located in England) males defended the area within 0.5m of the nest cavity, but early in the egg-laying stage other males within 10m were chased off. The most aggressive behaviours he described were birds staring at each other, stabbing with the bill, or the "fly-up". This latter behaviour involves two birds kicking and stabbing at each other in flight. These aggressive acts usually occur while feeding. Kessel (1950) studied the actions of a polygamous male which was involved with a total of five

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females. The only territorial action this starling displayed during an entire nesting season was to once chase away a group of males standing on a roof near one of his nests.

Aggression

On 19 March 1988, an adult and a juvenile male starling engaged in fierce fighting on my lawn, approximately 7km south of Cambridge, Regional Municipality of Waterloo. Their feet were locked together and there was much jabbing and pecking at each other. Often, one bird had the leg of the other in its mouth and appeared to be attempting to snap it. Most of the time they were lying flat on the grass with one or the other on top, with much wing-flapping and squawking occurring. After at least 15 minutes of fighting, it appeared as though their feet were tangled. They allowed approach to within 2m, but then disengaged themselves and flew to separate trees approximately 20m apart, where they continued to squawk at each other. The same interactions were observed again on 26 and 27 March, but for shorter durations.

With the exception of the encounters documented here, the starlings appeared to co-exist peacefully. Five were seen feeding simultaneously on a single slab of suet without aggression, and six pairs nested in an area of approximately 165m² with no other evidence of territoriality.

Although rarely reported in the

literature, aggression among starlings early in the nesting season may be frequent. On 30 March 1988, Bruce Smith of Cambridge (pers. comm.) reported two starlings lying prostrate on the sidewalk with their feet locked together. In his extensive study of starlings in New York, Kessel (1957) observed similar violent fights. He also reported males wrestling on the ground and pecking at each other savagely. In some cases, the combatants were so oblivious to their surroundings that he was able to pick them up.

Nest-site tenacity

The eaves of a stone woodshed attached to my house near Cambridge contains several holes, some of which have been used by nesting starlings for a number of years. Fly screening was nailed over these holes early in the spring to reduce the number of nest sites.

One hole was approximately 40cm long. The screening covered the hole in the wood, but left a gap of approximately 2cm between the wall of the shed and the screening. The pair of starlings that had planned to use this nest site was successfully evicted for three days. During this period, they often stood on the eaves, looked at the hole in a puzzled fashion, then flew away. On the fourth morning the female landed on the vertical stone wall and forced her way into the cavity. More screening was stuffed into the hold, so that only a 1cm gap was present and the starlings would be

facing the jagged edge of the new screening. This was successful in preventing entry for one day and then the female was once again observed going into the hole. Next, a board was placed under the old fascia, tightening the screening and leaving only a very small gap approximately 1 cm in width and 8 cm long between the stone and the board. This worked for two days and then the female again managed to squeeze in this small opening, although with great difficulty.

By mid-May, young could be heard in the nest and adults started bringing food. Both adults brought food, but the male had extreme difficulty in landing on the stone wall. Usually he eventually gave up, sat on the roof of the shed for a few seconds, then flew away with the food still in his bill. Food carrying by the parents lasted only a week and by 29 May, no adults were present and no young were heard.

This nest appeared to be unsuccessful, as young usually remain in the nest for 21 days (Kessel 1957). The inability of the male to enter the nest cavity and the female's difficulty in doing the same were probably the primary factors contributing to nest failure. Kessel (1957) noted that in their first few days, nestlings ate 50 per cent of their weight in food, and that by age 12 days this food intake increased to 85 per cent of their weight. Brown (1951) observed that the average number of feedings per hour was 10.9. Bent (1950) also

reported an average feeding interval of once every six minutes. It is unlikely that the female I observed was able to maintain the required rate of feeding.

A small nest cavity in the eaves of the northwest corner of the shed was also covered up. The male had constructed a nest in this cavity, which was actually on top of the stone wall in the shed, approximately 5 m from the ground. The screening effectively prevented the starlings from gaining access to the nest through this hole.

On the east side of the shed, there is a 2 m wide doorway with a 30 cm gap between the top of the door and the stone arch. Shortly after the cavity was covered, starlings were noticed flying through this opening into the shed. This pair was intelligent enough to find their nest from a different perspective. The linear external distance between the original nest cavity and the door is 8.5 m around a 90° corner, but the internal distance between the door and the nest is only 6.3 m.

The young in this nest all fledged successfully on 12 June. A dead adult male starling was found in the shed at the base of the nest.

Extreme aggression among nesting starlings is not common, but may be aggravated when the number of nest sites is decreased. The same nest sites may be used for several years, and adults will go to extreme measures to continue nesting in these areas.

Acknowledgements

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Notes

Behavioural Identification of the Wilson's Warbler

Warbler enthusiasts know only too well that many warblers, especially immatures in fall, go unidentified because they restlessly dart about or are barely visible in thick cover. The Wilson's Warbler (*Wilsonia pusilla*) is a very active, flitting, and often only briefly glimpsed species whose field marks are frequently not seen well enough to allow positive identification. Immatures also bear a resemblance to immature and female Yellow Warblers (*Dendroica petechia*). Fortunately, Wilson's can be easily identified by its distinctive behavioural actions.

Wilson's almost constantly flicks its wings like a Ruby-crowned Kinglet (*Regulus calendula*) and often flips its tail up and down or from side to side like a Blue-gray Gnatcatcher (*Poliophtila caerulea*). The fidgety, kinglet-like wing flicking is usually the most

noticeable action. Especially when observed skulking in thick shrubbery or seen in poor light, Wilson's is easy to distinguish by its behaviour.

William Brewster (in Bent 1953:630-631) and Wayne R. Petersen (in Farrand 1983:180) described the wing and tail actions of the Wilson's Warbler, but they failed to emphasize how useful these actions are to its identification under typical field conditions of poor light and thick cover. I encourage others to watch for the distinctive wing and tail twitching of the Wilson's Warbler. Once you are familiar with this behaviour, you will be able to identify with ease many more Wilson's which once went unidentified.