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DISTURBANCE FORAGING BY WHITE-THROATED SWALLOW *HIRUNDO ALBIGULARIS*

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In the afternoon of 25 February 2015, Les Underhill and I were atlasng next to the Black River in Cape Town in pentad 3355_1825 in the Oude Molen Eco Village near to the Vincent Pallotti Hospital, in the area between the suburbs of Pinelands and Mowbray. The weather was clear, with bright sunshine, and with a strong south-easterly wind blowing.

A White-throated Swallow *Hirundo albigularis* caught our attention because of its repeated flights close to our legs at low level (approx. 50 cm from the ground). It was a juvenile bird; it had a brownish back instead of the dark blue sheen of the adult. It would fly close to us (sometimes less than a meter away) and then fall away downwind to seize insects that were also being blown downwind. We observed that it was catching the insects that we were disturbing as we walked. It seemed particularly fearless in how close it came to us as it waited for each insect to be blown downwind.

This behaviour, disturbance foraging, is reminiscent of that of Cattle Egrets *Bubulcus ibis* which catch insects disturbed by browsing animals (Hockey et al. 2005). Disturbance foraging takes place when prey is located because it moves as a consequence of perceived danger. For Cattle Egrets, disturbance foraging is the norm; for swallows and martins it is opportunistic.

Hockey et al. (2005) did not mention disturbance foraging in the case of the White-throated Swallow, but similar behaviour was mentioned in eight of the other 22 swallows and martins which occur in southern Africa:

- Banded Martin *Riparia cincta* – “Forages by flying slowly over grass, around grazing antelope, zebras and cattle; attracted to grass fires.”
- Grey-rumped Swallow *Pseudhirundo griseopyga* – “Catches insects disturbed by fires, tractors, and even military explosives.”
- Barn Swallow *Hirundo rustica* - “Sometimes gathers to catch insects disturbed by foraging Ruffs *Philomachus pugnax*, grazing cattle, motor vehicles and ploughs.”
- Pearl-breasted Swallow *Hirundo dimidiata* – “Also eats insects flushed by fires, cars and horses.”
- Lesser Striped Swallow *Hirundo abyssinica* – “Forages over woodland and grassland, taking insects disturbed by cattle and other large grazing mammals.”
- South African Cliff-Swallow *Hirundo spilodera* – “Also eats insects flushed by grass fires, ploughs, sheep and cattle, Helmeted Guineafowl *Numida meleagris*, Cattle Egret *Bubulcus ibis* and Common Ostrich *Struthio camelus*.”
- Rock Martin *Hirundo fuligula* – “Attracted to fires and ploughs to feed on flushed insects; also attends termite emergences.”
- Common House-Martin *Delichon urbicum* – “Also forages around bush fires and tractors.”

In their review of the world’s swallows and martins, Turner & Rose (1989) wrote in the overview of foraging behaviour: “Any good source of insects, however transient, is exploited, including those provided by savannah fires and moving animals and tractors which disturb insects from the vegetation or ground.”

In the individual species accounts, Turner & Rose (1989) reported disturbance foraging in nine of the 75 species they recognized:

- White-rumped Swallow *Tachycineta leucorrhoa* – “...have been seen following humans on horseback and are attracted to humans and animals that are disturbing insects.”



- Blue-and-White Swallow *Notiochelidon cyanoleuca* – “...frequently feed around livestock, catching the insects disturbed by them.”
- Snowy-bellied Martin *Progne dominicensis* – “...often feed high up, but will forage low over fields and follow cattle to catch insects disturbed by them.”
- Barn Swallow *Hirundo rustica* – “often follow other birds and mammals, including humans, catching the insects disturbed by them.”
- Welcome Swallow *Hirundo neoxena* – “Brock (1978) observed Welcome Swallows walking behind starlings and magpies, flitting up to catch insects disturbed by these other birds.”
- Pearl-breasted Swallow *Hirundo dimidiata* – “...frequently perch on the ground or on small stones, especially around farmyards, where they feed on insects such as flies associated with livestock (R.A. Earle, pers. comm.); they also feed on insects flushed by moving animals (Dean and Macdonald 1981).”
- Lesser-striped Swallow *Hirundo abyssinica* – “...sometimes feed around cattle and other large animals, catching the insects disturbed by them.”
- South African Cliff Swallow *Hirundo spilodera* – “...sometimes feed with other animals, including sheep, cattle, guineafowl, Cattle Egrets *Bubulcus ibis* and Ostriches *Struthio camelus*, catching the insects disturbed by the larger animals; they will also tractor-drawn ploughs and settle on the ground to pick up insects...”
- Common House Martin *Delichon urbicum* – “...will follow ploughs and large animals to feed on the insects disturbed...”

There are some colourful descriptions of disturbance foraging by Barn Swallow in the literature. More than two centuries ago, White

(1788), describing the wildlife in and around the town of Selborne, Hampshire, UK, wrote of the Barn Swallow:

“Horsemen on wide downs are often closely attended by a little party of swallows for miles together, which plays before and behind them, sweeping around, and collecting all the skulking insects that are roused by the trampling of the horses’ feet: when the wind blows hard, without this expedient, they are often forced to settle to pick up their lurking prey.”

Hosking & Newberry (1946) wrote a popular monograph on the Barn Swallow:

“We recall how in the hot dusty days one early July the swallows darted and circled close around us as we walked or cycled along the Norfolk by-ways. They were after the numerous flies that we disturbed from the ground and hedges as we progressed, and more than once the swallows even passed beneath our bicycle pedals to collect a beakful of flies which they carried up to the youngsters flying around well above them.”

Disturbance foraging by swallows is thus a behaviour encompassing a history of several centuries. White-throated Swallow can be added to the list of species which opportunistically exhibit this strategy. It is likely that many of the remaining species in this family are also disturbance foragers, but without this having been reported.

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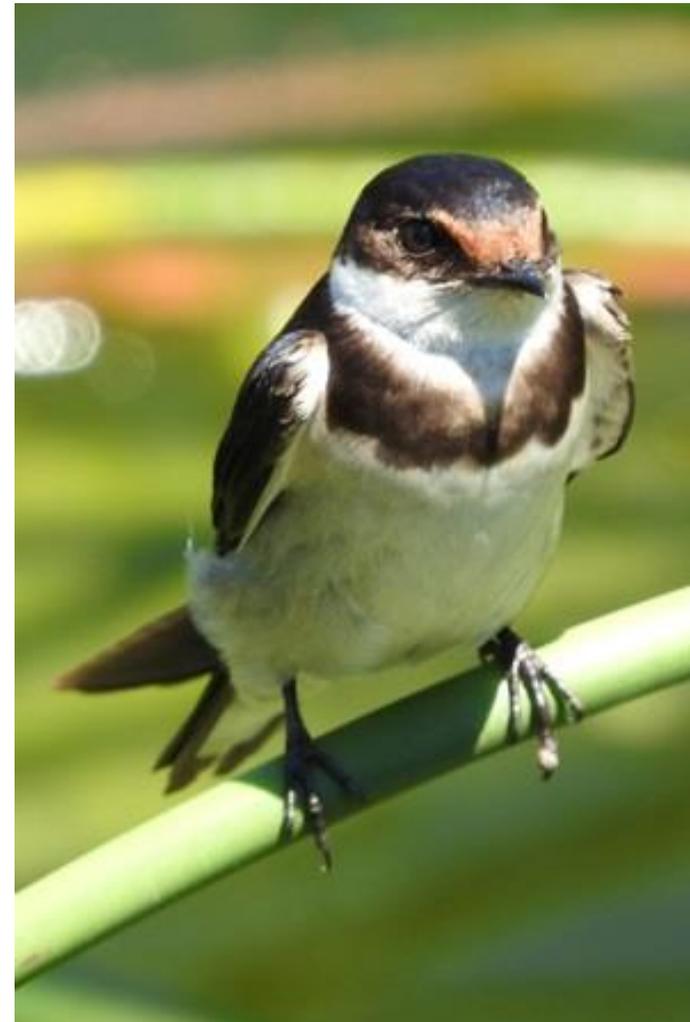
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Juvenile White-throated Swallow
Photo by H.D. Oschadleus (Birdpix 23938)