
Natural History Note

Starlings, mountain zebras and ticks

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Association between palewinged starlings *Onychognathus nabouroup* and Cape mountain zebras *Equus zebra zebra* was recorded in the Mountain Zebra National Park between April and November only, and then mainly during July and August (Penzhorn 1981, *Ostrich* 52: 63-64). It was suggested that starlings visited the zebras to glean ectoparasites. This occurred because the birds may be forced to exploit a marginal food source during the cold, dry winter months when the items which comprise their normal diet could be in short supply.

These mountain zebras harbour massive loads of ixodid ticks, particularly *Margaropus winthemi*, during winter (Horak, Knight & De Vos 1986, *Onderstepoort J. vet. Res.* 53: 127-152). Three zebras examined during July had a mean burden of 31 433 *M. winthemi* (range: 25 684 — 37 847) consisting of all developmental stages attached mainly to their necks, backs and sides. At the same time the zebras also harboured a mean burden of 1 166 ixodid ticks of other species. The predilection sites of attachment of the latter ticks are the inner thighs, ear canals, under the tail and around the hooves. Thus they would not have been readily accessible to the starlings, which alighted on the back or rump of a zebra, fluttered down the flanks of the animal or proceeded to the mane or base of the tail before flying off. Five zebras examined during the summer months (December, February and March) had a mean burden of 1 951 ticks (range: 366 — 4 350), of which fewer than 15 were *M. winthemi*. Gleaning ticks from zebras in winter could therefore be a rewarding strategy for starlings.

Large numbers of both immature and adult *Rhipicephalus evertsi mimeticus* have been recovered from Hartmann's mountain zebras *Equus zebra hartmannae* in Namibia (Horak, Biggs & Reinecke 1984, *Onderstepoort J. vet. Res.* 51: 183-187). The predilection sites of attachment of the adults of this species are the perianal area and the inner thighs. Joubert (1972, *Madoqua Ser. I* 6: 17-56) reported both palewinged starlings and forktailed drongos *Dicrurus adsimilis* associating with Hartmann's mountain zebras. The birds would alight on a zebra's back, run towards the tail and, while perched there, "pick off the ticks around the anus".

Although stomach contents of palewinged starlings have not, as far as we could ascertain, been analysed, the difference in behaviour between starlings in the Mountain Zebra National Park and those observed in Namibia strongly suggests that they are, in fact, gleaning ticks.