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SOUTHERN DOUBLE-COLLARED SUNBIRD *CINNYRIS CHALYBEUS* AND MALACHITE SUNBIRD *NECTARINIA FAMOSA* PRESENCE IN SOUTHERN NAMIBIA

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"Extreme southern Namibia" or "possibly extreme southern Namibia" is how the distribution of Malachite Sunbird *Nectarinia famosa* and Southern Double-collared Sunbird *Cinnyris chalybeus* is presented in Hockey *et al.* (2005) and Maclean (1993). Although Fraser (1997a) indicates that for the Southern Double-collared Sunbird there is a tiny distribution extending into Namibia across the Orange River, no further details are presented.

Both species are known to occur along the Orange River (Anderson 2006, Fraser 1997a, 1997b, Hockey *et al.* 2005, Maclean 1993). The Southern Double-collared Sunbird is viewed as a "common resident" with some individuals present all year at the Orange River estuary while the Malachite Sunbird is viewed as "common in the gardens of Oranjemund" (Anderson 2006). Although local movements, following flowering plants, are known, published records of these two sunbird species are scarce from elsewhere in southern Namibia.

On 26 April 2015, 2 male Southern Double-collared Sunbirds were observed foraging on the flowers of *Bougainvillea* sp. and *Rogeria longiflora* on a farm approximately 70 km north of Noordoewer in southern Namibia. This was followed by a male Malachite Sunbird on 24 May and 9 July 2015 and a female on 27 May 2015. Both sexes were foraging on *Bougainvillea* sp. flowers while the male also visited the flowers of *Aloe gariepensis*. All the birds flew off in a northerly direction.

Fig 1 - Male Southern Double-collared Sunbird photographed in Lüderitz on 10 June 2014 (©J. Kemper).

Southern Double-collared Sunbird

The first record of a Southern Double-collared Sunbird away from the Orange River was by Underhill (1988) who observed a male at the Lüderitz sewage works on 29 March 1988. Other more recent sightings are by J. Kemper (pers. com.) who first spotted them during January 2006 and thereafter occasionally in gardens – mainly between March and June – in Lüderitz (Figure 1); by N. Thomson at Augurabis between Holoog and the Fish River Canyon during a bird ringer get-together in May 2011 (Thomson 2011); by T. Archer (pers.

comm.) spotted a male at the White House guest farm north of Grünau on 9 June 2015 and by C. Brown (pers. comm.) who saw a male and female at the Gondwana Roadhouse (Gondwana Canyon Park) on 20 June 2015. These sightings are approximately 250 km, 100 km, 130 km and 90 km north of the Orange River, respectively.

In Namibia the population size of Southern Double-collared Sunbirds is unknown although it occurs at densities of 150-200 birds/km² in South Africa. Furthermore it is estimated to occupy an area of 4,800 km², of which 17% occurs within the protected areas of the /Ai-/Ais and Tsau//Khaeb (Sperrgebiet) National Parks (Jarvis *et al.* 2001). Reporting rates were higher than for Malachite Sunbird; several quarter degree grid cells along the Orange River had reporting rates of 40% (Simmons *et al.* 2015).

Malachite Sunbird

As far as we could determine (except for birds documented in this note) there are no records of Malachite Sunbird away from the Orange River environs from southern Namibia (Figure 2).

In Namibia the population size of Malachite Sunbirds is unknown although it can exceed densities of 350 birds/km² in South Africa (Fraser 1997b). Furthermore, it is estimated to occupy an area of about 1,800 km², of which 25% occurs within the /Ai-/Ais and Tsau//Khaeb (Sperrgebiet) National Parks (Jarvis *et al.* 2001).

In southern Namibia, the presence of flowering plants is highly variable. There are limited flowering periods with the presence of flowers often dependant on localised rainfall events. During this period of sunbird sightings the only flowering species present on site were *Bougainvillea* sp. and *Rogeria longiflora* while *Aloe gariepensis* had only recently started to flower. The *Aloe gariepensis* individuals do not occur naturally in the area, although are numerous in places in rocky terrain along the Orange River. Other plants flowering in the

Fig 2 - Male Malachite Sunbird photographed on farm approximately 70km north of the Orange River in southern Namibia on 9 July 2015 (©P. Cunningham).

immediate surrounding area during this period were *Tapinanthus oleifolius* (mistletoe) – ubiquitous – and *Aloe dichotoma* (quiver tree) – mainly limited to rocky terrain. The general area was also extremely dry with far below average rainfall having been received.

The occurrence of both species is probably quite widespread in southern Namibia, but due to limited sightings and/or observers, go unrecorded, and seasonality of occurrence is unknown. Southern Double-collared Sunbirds may even breed locally – e.g. sightings in Lüderitz since 1988 suggest this. An interesting question is what attracts these sunbirds into the harsh and marginal interior away from the more diverse Orange River habitat? A source of regular, albeit limited (in time), nectar in the area is *Aloe dichotoma* and although they typically flower between April and July (Mannheimer *et al.* 2008, Rothmann 2004); flowers are borne *en masse* producing copious amounts of nectar (Mannheimer and Curtis 2009). The diet of Malachite and Southern Double-collared Sunbirds includes numerous plant species (e.g. see Hockey *et al.* 2005 and Maclean 1993), although Manning (2007) indicates that Malachite Sunbird has a preference for larger flowers (e.g. *Aloe dichotoma*). As the flight distance between plants is influenced by nectar quantity from previous flowers (Gill and Wolf 1977) this could (together with arthropods) answer how they negotiate sparsely vegetated areas. The most recent sightings – June 2015 – confirms Southern Double-collared Sunbirds foraging on *Aloe dichotoma* and related succulents (C. Brown & T. Archer pers. comm.). With other flowering plants being scarce during this period – April to July – and having large flowers with copious nectar, we speculate that *A. dichotoma* is probably the inland attraction, away from the Orange River.

How Malachite Sunbird and Southern Double-collared Sunbird know this; why they do not keep going north (e.g. *A. dichotoma* occur as far north as the Brandberg – Mannheimer and Curtis 2009); what the level of competition is with Dusky Sunbirds *Cinnyris fuscus* which occur throughout the year in the area; how climate change (expected to negatively affect *A. dichotoma* – Burke 2012) may affect their forages into interior Namibia and what are the main distribution limiting factors, remain unanswered though.

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