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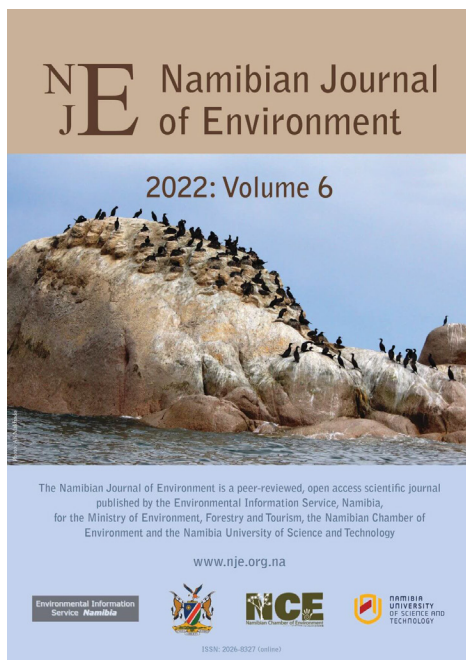
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Provisional atlas of breeding birds of Henties Bay in the coastal Namib Desert

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Abstract

Fourteen species were recorded breeding in the town of Henties Bay (345 ha) in 2016/17 austral summer, six of which made up 85.4% of all breeding birds. The dominant species were Laughing Dove *Streptopelia senegalensis*, Common Waxbill *Estrilda astrild*, House Sparrow *Passer domesticus*, Southern Masked Weaver *Ploceus velatus*, Cape Sparrow *Passer melanurus*, and Rosy-faced Lovebird *Agapornis roseicollis*. The breeding avifauna in Henties Bay is similar to that in Swakopmund and Walvis Bay.

Keywords: bird, breeding, community ecology, Namibia, population density, urban ornithology

Introduction

Studies on various biota in urban environments constitute a rapidly growing sub-discipline of ecological research. However, this sub-discipline is growing unevenly. For example, over 100 urban bird atlases are at present available in Europe (Luniak 2013, 2017), but only a few in Africa, mostly from the southern part of this continent (Kopij 2018). In Namibia, several provisional urban ornithological atlases have been completed recently in the following towns: Katima Mulilo (Kopij 2016), Outapi (Kopij 2019a), Swakopmund (Kopij 2018) and Walvis Bay (Kopij, in press). The two latter towns are located on the Atlantic Coast in the Namib Desert. In this paper, a provisional ornithological atlas is presented for Henties Bay (centred on about 22.1 South, 14.3 East), another coastal town situated in this desert.

Study area and methods

The Namib Desert is one of the oldest and most hyper-arid deserts in the world. It is unusual in that due to its location along the Atlantic Ocean, it is often covered by dense fog which brings water to all living organisms (Mendelsohn *et al.* 2009). There are only a few distinct towns along the coast: Lüderitz, Walvis Bay, Swakopmund and Henties Bay. From ecological point of view, these towns may be considered as artificial oases connected by wide ephemeral river valleys with savanna biomes further to the east. Henties Bay is situated near the Omaruru River mouth, 70 km N of Swakopmund (S 22°11'84", E 14°28'24"E) in the Erongo Region. Henties Bay is a tourist town, located along a high bank of the Atlantic Ocean, stretching today over almost 8 km. The study area was confined to the town lying between the ocean and the main Omaruru road (Figure 1). The town was founded in 1965 as a small tourist village, but by 2017 the population had reached c. 3 000 citizens and up to 7 000 tourists visit annually. The older parts of the town

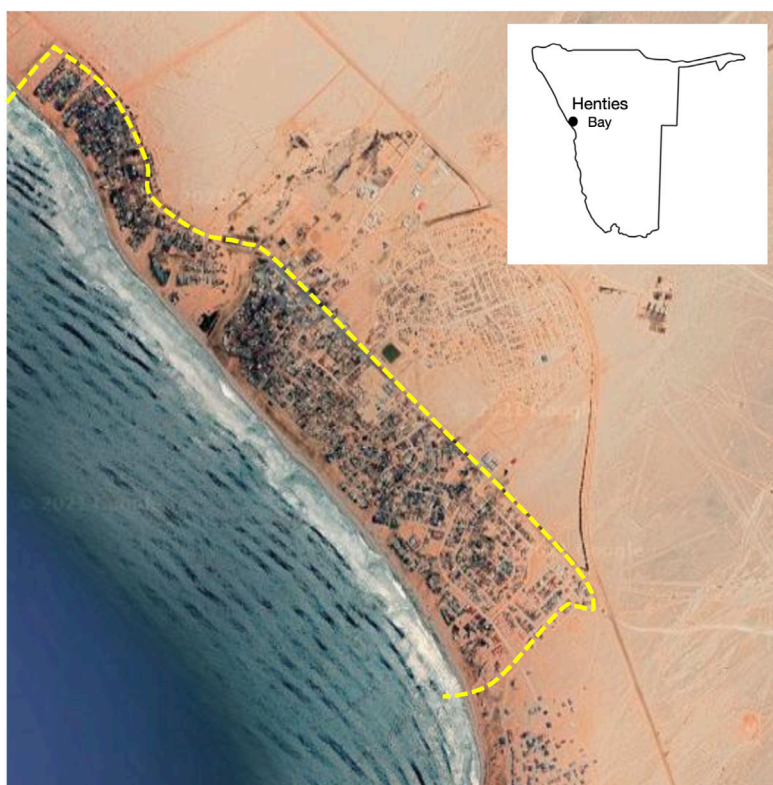


Figure 1: The location of Henties Bay in Namibia (inset), and the town with the study area demarcated with a broken yellow line (main panel).



Figure 2: Views of Henties Bay.

are well-vegetated with palms, araucarias, figs, all sorts of shrubs, succulents and herbs (Figure 2). There are numerous bird feeders installed in some yards, where seeds and nuts are provided on a regular basis throughout the year.

Studies were conducted in the austral summer of 2016/17. The simplified version of the mapping method (Bibby *et al.* 2012, Sutherland 1996) was employed to assess population densities and structure of community of birds breeding in the town. The formal, more vegetated and older part of the town was surveyed twice; the first survey was conducted between 20 December 2016 and 10 January 2017, the second survey between 15 January 2017 to 15 February 2017. For details regarding the methodology see Kopij (2018).

Results and discussion

A total of 14 breeding bird species were recorded in the town of Henties Bay in the study period (Table 1, Appendix 1). The dominant species were Laughing Dove, House Sparrow, Common Waxbill, Southern Masked Weaver, Cape Sparrow and

Rosy-faced Lovebird. Together, they comprised 85.4% of all breeding birds (Table 1). There were only two subdominant species, viz. Cape Wagtail and Speckled Pigeon. They comprised 8.3% of all breeding birds. The remaining six species comprised 6.2% (Table 1).

In Swakopmund, also located on the Atlantic coast, 18 breeding species were recorded in the same austral summer (2016/17). Six species were classified as dominants: Cape Sparrow, House Sparrow, Southern Masked Weaver, Common Waxbill, Laughing Dove and Rock Dove (Kopij 2018). In Walvis Bay, just south of Swakopmund, 17 breeding species were recorded in this same austral summer. Six species (Cape Sparrow, House Sparrow, Southern Masked Weaver, Common Waxbill, Laughing Dove, Rock Dove and Speckled Pigeon) were also dominant and comprised 88.2% of all breeding pairs recorded (Kopij, in press). Therefore, avian communities are very similar in Henties Bay, Swakopmund and Walvis Bay.

By contrast, in the town of Outapi, situated in the savanna biome of the northern Namibia, 29 breeding species were recorded (Kopij 2019a). Only three dominant species were distinguished, comprising only 65.4% (Kopij 2019a). Similarly, in the town Ongwediva, located in the same biome, 30 breeding species were recorded, with dominant species comprising 69.3% (Kopij 2021). Furthermore, 122 breeding bird species were recorded (with dominants comprising 42.5%) in the town of Katima Mulilo, situated in Zambezi Riparian Forest and Kalahari Woodland (Kopij 2016). This shows that towns located in savanna biomes contain greater bird diversity than those located on the arid Atlantic coastline.

Table 1: Breeding bird community in Henties Bay in the 2016/17 austral summer.

Species	Pairs (n)	Density (pairs/10 ha)	Dominance (%)
Laughing Dove <i>Streptopelia senegalensis</i>	251	7.3	29.4
House Sparrow <i>Passer domesticus</i>	141	4.1	16.6
Common Waxbill <i>Estrilda astrild</i>	124	3.6	14.6
Southern Masked Weaver <i>Ploceus velatus</i>	90	2.6	10.6
Cape Sparrow <i>Passer melanurus</i>	63	1.8	7.4
Rosy-faced Lovebird <i>Agapornis roseicollis</i>	60	1.7	7.1
Cape Wagtail <i>Motacilla capensis</i>	37	1.1	4.3
Speckled Pigeon <i>Columba guinea</i>	34	1.0	4.0
African Marsh Warbler <i>Acrocephalus baeticatus</i>	14	0.4	1.6
Dusky Sunbird <i>Cynniris fuscus</i>	11	0.3	1.3
Helmeted Guineafowl <i>Numida meleagris</i>	11	0.3	1.3
Red-faced Mousebird <i>Urocolius indicus</i>	10	0.3	1.2
Cape Glossy Starling <i>Lamprolornis nitens</i>	3	0.1	0.4
Rock Kestrel <i>Falco rupicolus</i>	2	0.1	0.2
Total	851	24.7	100.0

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Appendix 1. Distribution of occupied territories (i.e. breeding pairs) of particular bird species in Henties Bay in 2016/17 austral summer.

