Toktok Talkie

by Joh Henschel

Lifting the Veil off Fog

One thing is clear: fog is part and parcel of the Namib, a wet gift from the Benguela. Our unique, desert is the way it is largely because of fog, and we don't have the foggiest idea what this desert and its biodiversity would be like without fog. So, what is it with fog?

As every Namib toktokkie knows, fog brings welcome moisture to the otherwise dry desert at the coast. The process starts off when warm, humid air from the mid-Atlantic Ocean is blown across the cold Benguela Current and cools, causing moisture to condense on dust particles and form tiny suspended droplets that build low-lying clouds. When they are blown inland, thirsty toktokkies capture the droplets. Fog-basking, performed by two Onymacris species, one black, one pied, entails elaborate gymnastics at the most sleepy hour. Onymacris, which is usually only active by day, becomes active on cold foggy nights. It stumbles up the steep dune to its crest and with a head-stand lifts its body to intercept fog droplets and lets water run down the body into the mouth at the bottom. Scale-shield beetles, Lepidochora, construct fog-collecting trenches from which they drink. Several other beetles sip water drops from vegetation or sand.

Besides toktokkies, some other creatures also tap into fog's boon, famously, the many species of lichens which can form thick mats. Pencil shrubs (*Arthraerua leubnitziae*) and Herero triple-flowers (*Trianthema hereroensis*) suck up fog through their leaves and stow water away in their roots. Each tussock of dune bushman-grass (*Stipagrostis sabulicola*) channels some five litres of fog water down the grass stalks to its roots, and to the community of creatures thriving in this moisture. Side-winder adders suck fog water off their own bodies, palmatogeckos lick it off their faces, and spiders sip it off silk. Even springbok manage to get fog water by munching fog-wetted plants. These are only a few of the better-known examples. Suffice to note that while fog is around, the desert part of the Namib is on holiday.

On some two-hundred nights per year, fog covers the western half of the central Namib, wetting particularly the rocky ridges or other local elevations at altitudes of 30-300 meters above sea-level. Fog is such an important feature of the Namib, that it enjoys prominence in a project of the Ministry of Environment and Tourism concerning biodiversity processes, patterns and structure across the Namib landscape, the study being conducted by an international team of scientists, coordinated by Fauna and Flora International. Any consideration of what is special about the Namib and how best to manage these special features should include fog. To achieve that, one needs to understand the processes of its origin and destination, its patterns of interaction across the landscape, and the biodiversity features thus supported.

Zophosis moralesi notes that the solution to the problem of ensuring the continued viability of the Namib in the face of human developments becomes clearer by lifting the veil off fog.

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