Rhinos, rocks & rangers

The challenges & benefits of monitoring rhinos in hilly terrain

The Matobo Hills terrain is majestic: granite ridges tens of metres high run in a north-west to south-east direction, creating a series of semi-parallel valleys separated by dwalas (unbroken 'whalebacks') and kopjes (comprising large boulders and vegetated hills). The valleys are clothed with woodland close to the hills' bases and open woodland, grassland or seasonal wetlands further afield. High runoff from the hills result in relatively good surface water; springs and pools along small perennial rivers sustain rhinos and other wildlife through the dry months.

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This strongly three-dimensional habitat both facilitates and challenges rhino monitoring. On the plus side, numerous rocky outcrops enable the establishment of observation points from where rangers can survey large sections of the landscape for rhinos and unauthorised persons with the aid of binoculars. There are also restricted routes linking valleys, so animals are forced to use a limited number of paths to traverse their ranges. This, coupled with the habitual nature of rhino behaviour, allows management to plan camera-trap placement to optimise photo captures of individuals.

> **Rhinos are strongly nocturnal: three-quarters of camera-trap photos are taken between dusk & dawn**

Matobo black rhinos are no less irascible than any others, and they're notoriously difficult to approach closely. Not only do the animals stick to the more densely vegetated hill bases, but they're known to sleep in caves and gullies. (And who wants to corner a rhino?) They are also strongly nocturnal: three-quarters of camera-trap photos are taken between dusk and dawn. Just because they sleep by day doesn't mean they can be sneaked up on, either. It is claimed that rhinos can detect the scent of humans from as far away as a kilometre, and the wind eddies that develop when the predominant south-easterly wind hits the ridges certainly don't help the rangers! Using radio telemetry isn't simple either, as the hills cause the radio signal to 'bounce' and getting a clear indication of where the animal is takes a lot of skill and experience.

By comparison, white rhinos are easier to monitor directly. They are less aggressive, tend to associate in groups more regularly than black rhinos (although there are indications that female black rhinos with similar-age calves may form temporary, loose associations), and their preferred habitat lies in the more open valleys. White rhinos prefer shorter grass, so although much of the Matobo National Park has tall 'thatching' grass, which can exceed 2m in height, the white rhinos are often found in areas where the grass is kept short by other grazers such as zebra and blue wildebeest and in areas encroached by domestic cattle. However, close approach for the purposes of identifying individuals can still be complicated, primarily by the alarm systems of the bush: oxpeckers. The Matobo Hills house both yellow-billed and red-billed oxpeckers and is the only known site where hybrids of the two species occur. White rhinos frequently have a couple of sharp-eyed birds on board that take off in a panic if people approach.

Many species benefit from rhinos being in the Park. Dung middens, in particular, don't just act as territory markers for rhinos, they are gold mines for smaller animals that root through them for insects. Cameras set up near middens show them being visited by numerous species of birds, banded mongooses, jackals and civets.

Dambari Wildlife Trust continues to partner with Zimbabwe Parks and Wildlife Management Authority and Save African Rhinos Foundation in managing camera traps in the Park and maintaining a photo database. This project is extremely valuable for monitoring the populations and for determining movement patterns and several aspects of behaviour such as social groupings, activity patterns, and so on.

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