Citizen Science helps mountain zebra research in Etosha National Park

Visitors to Etosha National Park can help conservation science by photographing mountain zebra.

The Mountain Zebra Project, based at the Namibia Nature Foundation, and led by biologist Morris Gosling, has worked on the mountain zebras in the western part of Etosha National Park, since 2012. As in other areas of Namibia, the project employs an individual-based approach and individual zebra are recognized by fingerprint-like variation in their stripe patterns. Records of individuals can then be accumulated to build up information about population processes and behaviour.

But, up to now, the project has not taken full advantage of the fact that many visitors to Etosha take excellent photographs of zebras amongst those of the other spectacular wildlife that lives there. If some of these photos can reach us, they will add to records of individual zebra and transform our understanding of this little known species. Our aim is to encourage people to send their photos as files attached to emails (to l.m.gosling@ncl.ac.uk), via Dropbox or to the project's Facebook page (http://www.facebook.com.EtoshaHMZ). Feedback on the individuals identified will be provided to photographers. JPEG images are most useful and quality needs to be reasonably good to decode stripe patterns. Photos like the following are ideal:-



The situation in Etosha is complicated because two species of zebra live there: mountain zebra, or Hartmann's mountain zebra to give them their full name; and the more numerous Burchell's zebra, a type of plains zebra. Mountain zebra are mainly confined to the western part of Etosha, an area called Otjovasandu, which contains the famous Dolomite Lodge. Burchell's zebra overlap with mountain zebra in Otjovasandu and visit the same waterholes (both species are strongly water-dependent) and they also extend throughout the central and eastern parts of the Park where mountain zebra are generally absent. Many people who visit Etosha will learn to distinguish these two species for the first time and once this is achieved they are in a position to send photos of mountain zebra for use in our project. The differences can be seen in the following photographs:-


Left: Hartmann's mountain zebra (note gridiron pattern on rump and dewlap). Right: Burchell's zebra (note 'shadow' stripes).

Individual recognition is a powerful tool in wildlife biology but it is very time consuming and to make it manageable we focus on the right sides of the zebras body. Photographers are thus encouraged to send photos of the right sides of the body – and as close as possible to side-on to the camera. Fortunately the mountain zebra in Etosha are reasonably approachable and photographs of perfect right sides are often obtained – with a little luck and/or patience. But of course we are also interested in photographs that are less than perfect (it is sometimes possible to key out an individual with only part of the body visible) and ones that show interesting behavior.

Some photographs will be of known individuals and feedback will be provided via email or Facebook about the importance of the new information. And sometimes they will be of new animals who will be added to the ID reference library for the Park. Collectively we hope to build up an increasingly complete picture of the Etosha mountain zebra population which will help our understanding and assist conservation managers, both in Etosha and elsewhere in Namibia.

Morris Gosling, 27 March 2017.