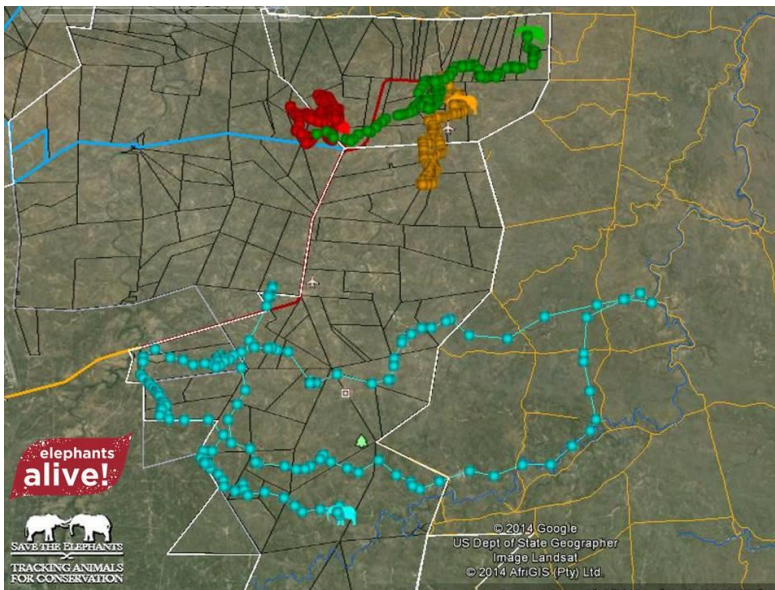


Movement patterns of musth and non-musth bulls

By Robin Cook

When an elephant bull is in musth, his behaviour is usually associated with heightened aggression as a result of an elevated testosterone level. Musth bulls can be identified by the secretions from their temporal glands, as well as a swollen and partially extended penis that drips a strong smelling secretion. However, on a larger scale, it can be possible to identify a musth bull by his expanded movements over a short period of time. Musth bulls leave their 'retirement' areas and wander alone in search of mating opportunities with elephant cows.



Focusing on the movement patterns of Gower (light blue) and Classic (red) during a week in 2014, we can observe two completely different movement patterns. Gower, who was in musth at the time, moved between the Kruger National Park and Timbavati Private Nature Reserve, with a movement pattern stretching roughly 43 km from West to

East. Classic on the other hand, had just finished his musth cycle and had moved off to a 'retirement' area to replenish his resources. His movements from West to East were roughly 2 km within that week.

Through the use of satellite technology, we are able to observe these changes in elephant movement patterns and then relate them to the conditions that we observe during fieldwork days to try and piece together the story of where and why elephants move the way they do.

