6.2.3. THE USE OF CORRECTION FACTORS IN ESTIMATING RHINO POPULATIONS

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Commonly used methods to estimate rhino populations are :

1. Direct Methods

   (a) aerial - total count
   - block count
   - Standard Recce Flight

   (b) ground - transect counts
   - road counts
   - drive counts
   - total counts
   - individual recognition

2. Indirect Methods, using tracks, droppings.

Of the methods listed above, individual recognition of rhinos in their home range is the most accurate. However, this can only be applied for small areas with open vegetation.

The rhino range in Tanzania is very large and includes areas of thick vegetation. In view of the vastness of the rhino range, aerial sampling is the only practical method, despite its limitations in thick vegetation, and the fact that it results in under-estimates.

In order to improve the accuracy of the aerial counts it is necessary to compare their results with those obtained from ground counts at the same point in time and space.

Simultaneous ground and aerial counts were carried out in differect vegetation types in the Selous Game Reserve and in the Ngorongoro Crater.

In the open areas of the Ngorongoro Crater, the total ground counts and total aerial counts were carried out and resulted in a correction factor of 1,7.

In the Brachystegia - Combretum woodlands of the north-eastern Selous, an area was ground driven and totally counted from the air five times and a correction factor of 2,55 was obtained.

These correction factors are only valid at that particular point in time and space and for that particular crew. As aerial counts are only possible in grasslands and woodland, the simultaneous ground and aerial counts should be repeated in the dry and wet season in variants of the three vegetation types to obtain an average dry and wet season correction factor for each vegetation type.