

BIOMASS PER UNIT AREA FOR THE SEASONALLY DEMARCATED FEEDING  
GROUNDS OF ELEPHANTS IN THE KRUGER NATIONAL PARK.

AREA: I.

SURFACE AREA: 120 sq. miles.

| Species           | Total<br>Number | Density<br>per sq. mile | Mean body<br>weight (lbs.) | Biomass lbs.<br>(Total area) | Biomass per<br>square mile | Differential<br>percentage of<br>total biomass |
|-------------------|-----------------|-------------------------|----------------------------|------------------------------|----------------------------|------------------------------------------------|
| Elephant ... ..   |                 |                         | 7000                       |                              |                            |                                                |
| Hippopotamus      | 55              | 0.46                    | 2500                       | 137,000                      | 1,145.8                    | 21.04                                          |
| Buffalo ... ..    | 20              | 0.17                    | 1100                       | 22,000                       | 183.3                      | 3.37                                           |
| Roan antelope     |                 |                         | 500                        |                              |                            |                                                |
| Sable antelope    |                 |                         | 350                        |                              |                            |                                                |
| Eland ... ..      |                 |                         | 1000                       |                              |                            |                                                |
| Tsessebe ... ..   |                 |                         | 200                        |                              |                            |                                                |
| Giraffe ... ..    |                 |                         | 1500                       |                              |                            |                                                |
| Waterbuck ... ..  | 100             | 0.83                    | 450                        | 45,000                       | 375.0                      | 6.89                                           |
| Wildebeest ... .. |                 |                         | 400                        |                              |                            |                                                |
| Zebra ... ..      | 200             | 1.67                    | 475                        | 95,000                       | 791.7                      | 14.54                                          |
| Impala ... ..     | 2,000           | 16.67                   | 90                         | 180,000                      | 1,500.0                    | 27.54                                          |
| Kudu ... ..       | 300             | 2.50                    | 380                        | 114,000                      | 950.0                      | 17.44                                          |
| Nyala ... ..      | 250             | 2.08                    | 120                        | 30,000                       | 250.0                      | 4.59                                           |
| White             |                 |                         |                            |                              |                            |                                                |
| Rhinceros ...     |                 |                         | 3000                       |                              |                            |                                                |
| Reedbuck ... ..   |                 |                         | 120                        |                              |                            |                                                |
| *Others ... ..    | 600             | 4.00                    | 50                         | 30,000                       | 250.0                      | 4.59                                           |
| TOTAL ... ..      | 3,825           | 28.38                   | 192                        | 653,500                      | 5,445.8                    | 100.0                                          |

\* Includes — Steenbuck, Sharpe's steenbuck, duiker, red duiker, warthog, bush pig, bushbuck, mountain reedbuck, klipspringer, suni, and oribi.  
Stocking rate of Area 1 is 11.86 animals (representative of a biomass of 5,445.8 lbs.) per square mile or per 302 morgen.

∴ 10.6 morgen per animal with a mean body weight of 192 lbs.  
Grazing potential thus available for an imaginary grazing and browsing animal of 273 lbs.\*\* would be 15.1 morgen per head.

\*\* The mean body weight per head of a total of 284,342 animals in the Kruger Park.

BIOMASS PER UNIT AREA FOR THE SEASONALLY DEMARCATED FEEDING  
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AREA: II.

SURFACE AREA: 130 sq. miles.

| Species           | Total<br>Number | Density<br>per sq. mile | Mean body<br>weight (lbs.) | Biomass lbs.<br>(Total area) | Biomass per<br>square mile | Differential<br>percentage of<br>total biomass |
|-------------------|-----------------|-------------------------|----------------------------|------------------------------|----------------------------|------------------------------------------------|
| Elephant ... ..   |                 |                         | 7000                       |                              |                            |                                                |
| Hippopotamus      | 30              | 0.23                    | 2500                       | 75,000                       | 576.9                      | 6.31                                           |
| Buffalo ... ..    | 50              | 0.38                    | 1100                       | 55,000                       | 423.1                      | 4.63                                           |
| Roan antelope     | 35              | 0.27                    | 500                        | 17,500                       | 134.6                      | 1.47                                           |
| Sable antelope    | 200             | 1.54                    | 350                        | 70,000                       | 538.5                      | 5.89                                           |
| Eland ... ..      |                 |                         | 1000                       |                              |                            |                                                |
| Tsessebe ... ..   |                 |                         | 200                        |                              |                            |                                                |
| Giraffe ... ..    | 80              | 0.62                    | 1500                       | 120,000                      | 923.1                      | 10.09                                          |
| Waterbuck ... ..  | 100             | 0.77                    | 450                        | 45,000                       | 346.2                      | 3.78                                           |
| Wildebeest ... .. | 400             | 3.08                    | 400                        | 160,000                      | 1,230.7                    | 13.45                                          |
| Zebra ... ..      | 450             | 3.46                    | 475                        | 213,750                      | 1,644.2                    | 17.97                                          |
| Impala ... ..     | 2,000           | 15.38                   | 90                         | 180,000                      | 1,384.6                    | 15.14                                          |
| Kudu ... ..       | 300             | 2.31                    | 380                        | 114,000                      | 876.9                      | 9.59                                           |
| Nyala ... ..      |                 |                         | 120                        |                              |                            |                                                |
| White             |                 |                         |                            |                              |                            |                                                |
| Rhinoceros ...    | 20              | 0.15                    | 3000                       | 60,000                       | 461.5                      | 5.04                                           |
| Reedbuck ... ..   | 450             | 3.46                    | 120                        | 54,000                       | 415.4                      | 4.54                                           |
| *Others ... ..    | 500             | 3.85                    | 50                         | 25,000                       | 192.3                      | 2.10                                           |
| TOTAL ... ..      | 4,615           | 35.50                   | 258                        | 1,189,250                    | 9,148.0                    | 100.00                                         |

\* Includes — Steenbuck, Sharpe's steenbuck, duiker, red duiker, warthog, bush pig, bushbuck, mountain reedbuck, klipspringer, suni, and oribi.

Stocking rate of Area II is 35.5 animals (representative of a biomass of 9,148.0 lbs.) per square mile or per 302 morgen.

∴ 8.5 morgen per animal with a mean body weight of 258 lbs.

Grazing potential thus available for an imaginary grazing and browsing animal of 273 lbs.\*\* would be 8.9 morgen per head.

\*\* The mean body weight per head of a total of 284,342 animals in the Kruger Park.

**BIOMASS PER UNIT AREA FOR THE SEASONALLY DEMARCATED FEEDING  
GROUNDS OF ELEPHANTS IN THE KRUGER NATIONAL PARK.**

AREA: III.

SURFACE AREA: 100 sq. miles.

| Species             | Total<br>Number | Density<br>per sq. mile | Mean body<br>weight (lbs.) | Biomass lbs.<br>(Total area) | Biomass per<br>square mile | Differential<br>percentage of<br>total biomass |
|---------------------|-----------------|-------------------------|----------------------------|------------------------------|----------------------------|------------------------------------------------|
| Elephant ... ..     |                 |                         | 7000                       |                              |                            | 8.62%                                          |
| Hippopotamus        | 125             | 1.25                    | 2500                       | 312,500                      | 3,125.0                    | 61.43                                          |
| Buffalo ... ..      | 2,024           | 20.24                   | 1100                       | 2,226,400                    | 22,264.0                   |                                                |
| Roan antelope       |                 |                         | 500                        |                              |                            |                                                |
| Sable antelope      |                 |                         | 350                        |                              |                            |                                                |
| Eland ... ..        |                 |                         | 1000                       |                              |                            |                                                |
| Tsessebe ... ..     |                 |                         | 200                        |                              |                            |                                                |
| Giraffe ... ..      | 100             | 1.00                    | 1500                       | 150,000                      | 1,500.0                    | 4.14                                           |
| Waterbuck ... ..    | 80              | 0.80                    | 450                        | 36,000                       | 360.0                      | 0.99                                           |
| Wildebeest ... ..   | 350             | 3.50                    | 400                        | 140,000                      | 1,400.0                    | 3.86                                           |
| Zebra ... ..        | 450             | 4.50                    | 475                        | 213,750                      | 2,137.5                    | 5.90                                           |
| Impala ... ..       | 5,000           | 50.00                   | 90                         | 450,000                      | 4,500.0                    | 12.42                                          |
| Kudu ... ..         | 100             | 1.00                    | 380                        | 38,000                       | 380.0                      | 1.05                                           |
| Nyala ... ..        |                 |                         | 120                        |                              |                            |                                                |
| White               |                 |                         |                            |                              |                            |                                                |
| Rhinceros ...       | 10              | 0.10                    | 3000                       | 30,000                       | 300.0                      | 0.83                                           |
| Reedbuck ... ..     | 20              | 0.20                    | 120                        | 2,400                        | 24.0                       | 0.07                                           |
| *Others ... ..      | 500             | 5.00                    | 50                         | 25,000                       | 250.0                      | 0.69                                           |
| <b>TOTAL ... ..</b> | <b>8,759</b>    | <b>87.59</b>            | <b>413</b>                 | <b>3,624,050</b>             | <b>36,240.5</b>            | <b>100.00</b>                                  |

\* Includes — Steenbuck, Sharpe's steenbuck, duiker, red duiker, warthog, bush pig, bushbuck, mountain reedbuck, klipspringer, suni, and oribi.  
Stocking rate of Area III is 87.59 animals (representative of a biomass of 36,240.5 lbs.) per square mile or per 302 morgen.

∴ 3.4 morgen per animal with a mean body weight of 413 lbs.  
Grazing potential thus available for an imaginary grazing and browsing animal of 273 lbs.\*\* would be 2.2 morgen per head.

\*\* The mean body weight per head of a total of 284,342 animals in the Kruger Park.

BIOMASS PER UNIT AREA FOR THE SEASONALLY DEMARCATED FEEDING  
GROUNDS OF ELEPHANTS IN THE KRUGER NATIONAL PARK.

AREA: 1.

SURFACE AREA: 420 sq. miles.

| Species                 | Total<br>Number | Density<br>per sq. mile | Mean body<br>weight (lbs.) | Biomass lbs.<br>(Total area) | Biomass per<br>square mile | Differential<br>percentage of<br>total biomass |
|-------------------------|-----------------|-------------------------|----------------------------|------------------------------|----------------------------|------------------------------------------------|
| Elephant ... ..         | 74              | 0.18                    | 7000                       | 518,000                      | 1,233.3                    | 26.17%                                         |
| Hippopotamus            |                 |                         | 2500                       |                              |                            |                                                |
| Buffalo ... ..          | 153             | 0.36                    | 1100                       | 168,300                      | 400.7                      | 8.50                                           |
| Roan antelope           | 76              | 0.18                    | 500                        | 38,000                       | 90.5                       | 1.92                                           |
| Sable antelope          | 175             | 0.42                    | 350                        | 61,250                       | 145.8                      | 3.09                                           |
| Eland ... ..            | 100             | 0.24                    | 1000                       | 100,000                      | 238.1                      | 5.05                                           |
| Tsessebe ... ..         | 200             | 0.48                    | 200                        | 40,000                       | 95.2                       | 2.02                                           |
| Giraffe ... ..          | 80              | 0.19                    | 1500                       | 120,000                      | 285.7                      | 6.06                                           |
| Waterbuck ... ..        | 100             | 0.24                    | 450                        | 45,000                       | 107.1                      | 2.27                                           |
| Wildebeest ... ..       | 220             | 0.52                    | 400                        | 88,000                       | 209.5                      | 4.45                                           |
| Zebra ... ..            | 1,000           | 2.38                    | 475                        | 475,000                      | 1,130.9                    | 23.99                                          |
| Impala ... ..           | 1,000           | 2.38                    | 90                         | 90,000                       | 214.3                      | 4.55                                           |
| Kudu ... ..             | 400             | 0.95                    | 380                        | 152,000                      | 361.9                      | 7.69                                           |
| Nyala ... ..            | 50              | 0.12                    | 120                        | 6,000                        | 14.3                       | 0.30                                           |
| White<br>Rhinoceros ... |                 |                         | 3000                       |                              |                            |                                                |
| Reedbuck ... ..         | 150             | 0.36                    | 120                        | 18,000                       | 42.9                       | 0.91                                           |
| *Others ... ..          | 1,200           | 2.86                    | 50                         | 60,000                       | 142.9                      | 3.03                                           |
| TOTAL ... ..            | 4,978           | 11.86                   | 397                        | 1,979,550                    | 4,713.1                    | 100.00                                         |

\* Includes — Steenbuck, Sharpe's steenbuck, duiker, red duiker, warthog, bush pig, bushbuck, mountain reedbuck, klipspringer, suni, and oribi.  
Stocking rate of Area I is 11.86 animals (representative of a biomass of 4,713.1 lbs.) per square mile or per 302 morgen.

∴ 25.4 morgen per animal with a mean body weight of 397 lbs.  
Grazing potential thus available for an imaginary grazing and browsing animal of 273 lbs.\*\* would be 17.5 morgen per head.

\*\* The mean body weight per head of a total of 284,342 animals in the Kruger Park.

BIOMASS PER UNIT AREA FOR THE SEASONALLY DEMARCATED FEEDING  
GROUNDS OF ELEPHANTS IN THE KRUGER NATIONAL PARK.

AREA: 2.

SURFACE AREA: 40 sq. miles.

| Species                 | Total<br>Number | Density<br>per sq. mile | Mean body<br>weight (lbs.) | Biomass lbs.<br>(Total area) | Biomass per<br>square mile | Differential<br>percentage of<br>total biomass |
|-------------------------|-----------------|-------------------------|----------------------------|------------------------------|----------------------------|------------------------------------------------|
| Elephant ... ..         |                 |                         | 7000                       |                              |                            |                                                |
| Hippopotamus            |                 |                         | 2500                       |                              |                            |                                                |
| Buffalo ... ..          | 368             | 9.20                    | 1100                       | 404,800                      | 10,120.0                   | 72.54%                                         |
| Roan antelope           |                 |                         | 500                        |                              |                            |                                                |
| Sable antelope          | 25              | 0.63                    | 350                        | 8,750                        | 218.8                      | 1.57                                           |
| Eland ... ..            | 50              | 1.25                    | 1000                       | 50,000                       | 1,250.0                    | 8.95                                           |
| Tsessebe ... ..         |                 |                         | 200                        |                              |                            |                                                |
| Giraffe ... ..          |                 |                         | 1500                       |                              |                            |                                                |
| Waterbuck ... ..        |                 |                         | 450                        |                              |                            |                                                |
| Wildebeest ... ..       |                 |                         | 400                        |                              |                            |                                                |
| Zebra ... ..            | 100             | 2.50                    | 475                        | 47,500                       | 1,187.5                    | 8.51                                           |
| Impala ... ..           | 50              | 1.25                    | 90                         | 4,500                        | 112.5                      | 0.81                                           |
| Kudu ... ..             | 50              | 1.25                    | 380                        | 19,000                       | 475.0                      | 3.40                                           |
| Nyala ... ..            | 50              | 1.25                    | 120                        | 6,000                        | 150.0                      | 1.08                                           |
| White<br>Rhinoceros ... |                 |                         | 3000                       |                              |                            |                                                |
| Reedbuck ... ..         |                 |                         | 120                        |                              |                            |                                                |
| *Others ... ..          | 350             | 8.75                    | 50                         | 17,500                       | 437.5                      | 3.14                                           |
| TOTAL ... ..            | 1,043           | 26.08                   | 534                        | 558,050                      | 13,951.3                   | 100.00                                         |

\* Includes — Steenbuck, Sharpe's steenbuck, duiker, red duiker, warthog, bush pig, bushbuck, mountain reedbuck, klipspringer, suni, and oribi.  
Stocking rate of Area 2 is 26.08 animals (representative of a biomass of 13,951.3 lbs.) per square mile or per 302 morgen.

∴ 11.6 morgen per animal with a mean body weight of 534 lbs.  
Grazing potential thus available for an imaginary grazing and browsing animal of 273 lbs.\*\* would be 5.9 morgen per head.

\*\* The mean body weight per head of a total of 284,342 animals in the Kruger Park.

BIOMASS PER UNIT AREA FOR THE SEASONALLY DEMARCATED FEEDING  
GROUNDS OF ELEPHANTS IN THE KRUGER NATIONAL PARK.

AREA: 3.

SURFACE AREA: 40 sq. miles.

| Species                 | Total<br>Number | Density<br>per sq. mile | Mean body<br>weight (lbs.) | Biomass lbs.<br>(Total area) | Biomass per<br>square mile | Differential<br>percentage of<br>total biomass |
|-------------------------|-----------------|-------------------------|----------------------------|------------------------------|----------------------------|------------------------------------------------|
| Elephant ... ..         | 39              | 0.98                    | 7000                       | 273,000                      | 6,825.0                    | 68.7%                                          |
| Hippopotamus            |                 |                         | 2500                       |                              |                            |                                                |
| Buffalo ... ..          |                 |                         | 1100                       |                              |                            |                                                |
| Roan antelope           |                 |                         | 500                        |                              |                            |                                                |
| Sable antelope          | 15              | 0.38                    | 350                        | 5,250                        | 131.3                      | 1.32                                           |
| Eland ... ..            |                 |                         | 1000                       |                              |                            |                                                |
| Tsessebe                | 25              | 0.63                    | 200                        | 5,000                        | 125.0                      | 1.26                                           |
| Giraffe ... ..          |                 |                         | 1500                       |                              |                            |                                                |
| Waterbuck ... ..        |                 |                         | 450                        |                              |                            |                                                |
| Wildebeest              | 45              | 1.13                    | 400                        | 180,000                      | 450.0                      | 4.53                                           |
| Zebra ... ..            | 150             | 3.75                    | 475                        | 71,250                       | 1,781.3                    | 17.93                                          |
| Impala ... ..           |                 |                         | 90                         |                              |                            |                                                |
| Kudu ... ..             | 50              | 1.25                    | 380                        | 19,000                       | 475.0                      | 4.78                                           |
| Nyala ... ..            |                 |                         | 120                        |                              |                            |                                                |
| White<br>Rhinoceros ... |                 |                         | 3000                       |                              |                            |                                                |
| Reedbuck ... ..         | 20              | 0.50                    | 120                        | 2,400                        | 60.0                       | 0.60                                           |
| *Others ... ..          | 70              | 1.75                    | 50                         | 3,500                        | 87.5                       | 0.88                                           |
| <b>TOTAL ... ..</b>     | <b>414</b>      | <b>10.37</b>            | <b>955</b>                 | <b>397,400</b>               | <b>9,935.1</b>             | <b>100.00</b>                                  |

\* Includes — Steenbuck, Sharpe's steenbuck, duiker, red duiker, warthog, bush pig, bushbuck, mountain reedbuck, klipspringer, suni, and oribi.

Stocking rate of Area 3 is 10.37 animals (representative of a biomass of 9,935.1 lbs.) per square mile or per 302 morgen.

∴ 29.0 morgen per animal with a mean body weight of 955 lbs.

Grazing potential thus available for an imaginary grazing and browsing animal of 273 lbs.\*\* would be 8.3 morgen per head.

\*\* The mean body weight per head of a total of 284,342 animals in the Kruger Park.

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AREA: 4.

SURFACE AREA: 25 sq. miles.

| Species                | Total<br>Number | Density<br>per sq. mile | Mean body<br>weight (lbs.) | Biomass lbs.<br>(Total area) | Biomass per<br>square mile | Differential<br>percentage of<br>total biomass |
|------------------------|-----------------|-------------------------|----------------------------|------------------------------|----------------------------|------------------------------------------------|
| Elephant ... ..        | 6               | 0.24                    | 7000                       | 42,000                       | 1,680.0                    | 42.92%                                         |
| Hippopotamus           |                 |                         | 2500                       |                              |                            |                                                |
| Buffalo ... ..         |                 |                         | 1100                       |                              |                            |                                                |
| Roan antelope          |                 |                         | 500                        |                              |                            |                                                |
| Sable antelope         |                 |                         | 350                        |                              |                            |                                                |
| Eland ... ..           |                 |                         | 1000                       |                              |                            |                                                |
| Tsessebe ... ..        | 20              | 0.80                    | 200                        | 4,000                        | 160.0                      | 4.09                                           |
| Giraffe ... ..         |                 |                         | 1500                       |                              |                            |                                                |
| Waterbuck ... ..       |                 |                         | 450                        |                              |                            |                                                |
| Wildebeest ... ..      | 10              | 0.40                    | 400                        | 4,000                        | 160.0                      | 4.09                                           |
| Zebra ... ..           | 50              | 2.00                    | 475                        | 23,750                       | 950.0                      | 24.27                                          |
| Impala ... ..          | 100             | 4.00                    | 90                         | 9,000                        | 360.0                      | 9.19                                           |
| Kudu ... ..            | 30              | 1.20                    | 380                        | 11,400                       | 456.0                      | 11.65                                          |
| Nyala ... ..           |                 |                         | 120                        |                              |                            |                                                |
| White<br>Rhinceros ... |                 |                         | 3000                       |                              |                            |                                                |
| Reedbuck ... ..        | 10              | 0.40                    | 120                        | 1,200                        | 48.0                       | 1.23                                           |
| *Others ... ..         | 50              | 2.00                    | 50                         | 2,500                        | 100.0                      | 2.55                                           |
| TOTAL ... ..           | 276             | 11.04                   | 418                        | 97,850                       | 3,914.0                    | 99.99                                          |

\* Includes — Steenbuck, Sharpe's steenbuck, duiker, red duiker, warthog, bush pig, bushbuck, mountain reedbuck, klipspringer, suni, and oribi.  
Stocking rate of Area 4 is 11.04 animals (representative of a biomass of 3,914.0 lbs.) per square mile or per 302 morgen.

∴ 27.35 morgen per animal with a mean body weight of 418 lbs.  
Grazing potential thus available for an imaginary grazing and browsing animal of 273 lbs.\*\* would be 17.8 morgen per head.

\*\* The mean body weight per head of a total of 284,342 animals in the Kruger Park.

**BIOMASS PER UNIT AREA FOR THE SEASONALLY DEMARCATED FEEDING  
GROUNDS OF ELEPHANTS IN THE KRUGER NATIONAL PARK.**

AREA: 5.

SURFACE AREA: 50 sq. miles.

| Species             | Total<br>Number | Density<br>per sq. mile | Mean body<br>weight (lbs.) | Biomass lbs.<br>(Total area) | Biomass per<br>square mile | Differential<br>percentage of<br>total biomass |
|---------------------|-----------------|-------------------------|----------------------------|------------------------------|----------------------------|------------------------------------------------|
| Elephant ... ..     | 12              | 0.24                    | 7000                       | 84,000                       | 1,680.0                    | 31.48%                                         |
| Hippopotamus        |                 |                         | 2500                       |                              |                            |                                                |
| Buffalo ... ..      |                 |                         | 1100                       |                              |                            |                                                |
| Roan antelope       | 10              | 0.20                    | 500                        | 5,000                        | 100.0                      | 1.87                                           |
| Sable antelope      |                 |                         | 350                        |                              |                            |                                                |
| Eland ... ..        |                 |                         | 1000                       |                              |                            |                                                |
| Tsessebe ... ..     | 25              | 0.50                    | 200                        | 5,000                        | 100.0                      | 1.87                                           |
| Giraffe ... ..      |                 |                         | 1500                       |                              |                            |                                                |
| Waterbuck ... ..    |                 |                         | 450                        |                              |                            |                                                |
| Wildebeest ... ..   | 120             | 2.40                    | 400                        | 48,000                       | 960.0                      | 17.98                                          |
| Zebra ... ..        | 200             | 4.00                    | 475                        | 95,000                       | 1,900.0                    | 35.59                                          |
| Impala ... ..       |                 |                         | 90                         |                              |                            |                                                |
| Kudu ... ..         | 50              | 1.00                    | 380                        | 19,000                       | 380.0                      | 7.12                                           |
| Nyala ... ..        |                 |                         | 120                        |                              |                            |                                                |
| White               |                 |                         |                            |                              |                            |                                                |
| Rhinoceros ...      |                 |                         | 3000                       |                              |                            |                                                |
| Reedbuck ... ..     | 70              | 1.40                    | 120                        | 8,400                        | 168.0                      | 3.15                                           |
| *Others ... ..      | 50              | 1.00                    | 50                         | 2,500                        | 50.0                       | 0.94                                           |
| <b>TOTAL ... ..</b> | <b>537</b>      | <b>10.74</b>            | <b>496</b>                 | <b>266,900</b>               | <b>5,338.0</b>             | <b>100.00</b>                                  |

\* Includes — Steenbuck, Sharpe's steenbuck, duiker, red duiker, warthog, bush pig, bushbuck, mountain reedbuck, klipspringer, suni, and oribi.  
Stocking rate of Area 5 is 10.74 animals (representative of a biomass of 5,338.0 lbs.) per square mile or per 302 morgen.

∴ 28.1 morgen per animal with a mean body weight of 496 lbs.  
Grazing potential thus available for an imaginary grazing and browsing animal of 273 lbs.\*\* would be 15.5 morgen per head.

\*\* The mean body weight per head of a total of 284,342 animals in the Kruger Park.



BIOMASS PER UNIT AREA FOR THE SEASONALLY DEMARCATED FEEDING  
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AREA: 6.

SURFACE AREA: 45 sq. miles.

| Species                 | Total<br>Number | Density<br>per sq. mile | Mean body<br>weight (lbs.) | Biomass lbs.<br>(Total area) | Biomass per<br>square mile | Differential<br>percentage of<br>total biomass |
|-------------------------|-----------------|-------------------------|----------------------------|------------------------------|----------------------------|------------------------------------------------|
| Elephant ... ..         | 21              | 0.47                    | 7000                       | 147,000                      | 3,266.7                    | 68.3%                                          |
| Hippopotamus            |                 |                         | 2500                       |                              |                            |                                                |
| Buffalo ... ..          |                 |                         | 1100                       |                              |                            |                                                |
| Roan antelope           | 8               | 0.18                    | 500                        | 4,000                        | 88.9                       | 1.86                                           |
| Sable antelope          | 45              | 1.00                    | 350                        | 15,750                       | 350.0                      | 7.32                                           |
| Eland ... ..            |                 |                         | 1000                       |                              |                            |                                                |
| Tsessebe ... ..         | 10              | 0.22                    | 200                        | 2,000                        | 44.4                       | 0.93                                           |
| Giraffe ... ..          |                 |                         | 1500                       |                              |                            |                                                |
| Waterbuck ... ..        |                 |                         | 450                        |                              |                            |                                                |
| Wildebeest ... ..       |                 |                         | 400                        |                              |                            |                                                |
| Zebra ... ..            | 50              | 1.11                    | 475                        | 23,750                       | 527.8                      | 11.04                                          |
| Impala ... ..           |                 |                         | 90                         |                              |                            |                                                |
| Kudu ... ..             | 50              | 1.11                    | 380                        | 19,000                       | 422.2                      | 8.83                                           |
| Nyala ... ..            |                 |                         | 120                        |                              |                            |                                                |
| White<br>Rhinoceros ... |                 |                         | 3000                       |                              |                            |                                                |
| Reedbuck ... ..         | 10              | 0.22                    | 120                        | 1,200                        | 26.7                       | 0.56                                           |
| *Others ... ..          | 50              | 1.11                    | 50                         | 2,500                        | 55.6                       | 1.16                                           |
| TOTAL ... ..            | 244             | 5.42                    | 882                        | 215,200                      | 4,782.3                    | 100.00                                         |

\* Includes — Steenbuck, Sharpe's steenbuck, duiker, red duiker, warthog, bush pig, bushbuck, mountain reedbuck, klipspringer, suni, and oribi.  
Stocking rate of Area 6 is 5.42 animals (representative of a biomass of 4,782.3 lbs.) per square mile or per 302 morgen.

∴ 55.7 morgen per animal with a mean body weight of 882 lbs.  
Grazing potential thus available for an imaginary grazing and browsing animal of 273 lbs.\*\* would be 17.2 morgen per head.

\*\* The mean body weight per head of a total of 284,342 animals in the Kruger Park.

BIOMASS PER UNIT AREA FOR THE SEASONALLY DEMARCATED FEEDING  
GROUNDS OF ELEPHANTS IN THE KRUGER NATIONAL PARK.

AREA: 7.

SURFACE AREA: 25 sq. miles.

| Species             | Total<br>Number | Density<br>per sq. mile | Mean body<br>weight (lbs.) | Biomass lbs.<br>(Total area) | Biomass per<br>square mile | Differential<br>percentage of<br>total biomass |
|---------------------|-----------------|-------------------------|----------------------------|------------------------------|----------------------------|------------------------------------------------|
| Elephant ... ..     | 3               | 0.12                    | 7000                       | 21,000                       | 840.0                      | 6.95%                                          |
| Hippopotamus        |                 |                         | 2500                       |                              |                            |                                                |
| Buffalo ... ..      |                 |                         | 1100                       |                              |                            |                                                |
| Roan antelope       |                 |                         | 500                        |                              |                            |                                                |
| Sable antelope      |                 |                         | 350                        |                              |                            |                                                |
| Eland ... ..        |                 |                         | 1000                       |                              |                            |                                                |
| Tsessebe ... ..     |                 |                         | 200                        |                              |                            |                                                |
| Giraffe ... ..      | 30              | 1.20                    | 1500                       | 45,000                       | 1,800.0                    | 14.88                                          |
| Waterbuck ... ..    | 50              | 2.00                    | 450                        | 22,500                       | 900.0                      | 7.44                                           |
| Wildebeest ... ..   | 200             | 8.00                    | 400                        | 80,000                       | 3,200.0                    | 26.46                                          |
| Zebra ... ..        | 500             | 20.00                   | 475                        | 23,750                       | 950.0                      | 7.86                                           |
| Impala ... ..       | 1,000           | 40.00                   | 90                         | 90,000                       | 3,600.0                    | 29.77                                          |
| Kudu ... ..         | 30              | 1.20                    | 380                        | 11,400                       | 456.0                      | 3.77                                           |
| Nyala ... ..        |                 |                         | 120                        |                              |                            |                                                |
| White               |                 |                         |                            |                              |                            |                                                |
| Rhinoceros ...      |                 |                         | 3000                       |                              |                            |                                                |
| Reedbuck ... ..     | 10              | 0.40                    | 120                        | 1,200                        | 48.0                       | 0.40                                           |
| *Others ... ..      | 150             | 6.00                    | 50                         | 7,500                        | 300.0                      | 2.48                                           |
| <b>TOTAL ... ..</b> | <b>1,973</b>    | <b>58.92</b>            | <b>205</b>                 | <b>302,350</b>               | <b>12,094.0</b>            | <b>100.01</b>                                  |

\* Includes — Steenbuck, Sharpe's steenbuck, duiker, red duiker, warthog, bush pig, bushbuck, mountain reedbuck, klipspringer, suni, and oribi.  
Stocking rate of Area 7 is 58.92 animals (representative of a biomass of 12,094.0 lbs.) per square mile or per 302 morgen.

∴ 5.1 morgen per animal with a mean body weight of 205 lbs.  
Grazing potential thus available for an imaginary grazing and browsing animal of 273 lbs.\*\* would be 6.8 morgen per head.

\*\* The mean body weight per head of a total of 284,342 animals in the Kruger Park.

BIOMASS PER UNIT AREA FOR THE SEASONALLY DEMARCATED FEEDING  
GROUNDS OF ELEPHANTS IN THE KRUGER NATIONAL PARK.

AREA: 8.

SURFACE AREA: 400 sq. miles.

| Species           | Total<br>Number | Density<br>per sq. mile | Mean body<br>weight (lbs.) | Biomass lbs.<br>(Total area) | Biomass per<br>square mile | Differential<br>percentage of<br>total biomass |
|-------------------|-----------------|-------------------------|----------------------------|------------------------------|----------------------------|------------------------------------------------|
| Elephant ... ..   | 9               | 0.02                    | 7000                       | 63,000                       | 157.5                      | 1.46%                                          |
| Hippopotamus      |                 |                         | 2500                       |                              |                            |                                                |
| Buffalo ... ..    | 566             | 1.42                    | 1100                       | 622,600                      | 1,556.5                    | 14.46                                          |
| Roan antelope     |                 |                         | 500                        |                              |                            |                                                |
| Sable antelope    | 100             | 0.25                    | 350                        | 35,000                       | 87.5                       | 0.81                                           |
| Eland ... ..      |                 |                         | 1000                       |                              |                            |                                                |
| Tsessebe ... ..   |                 |                         | 200                        |                              |                            |                                                |
| Giraffe ... ..    | 670             | 1.68                    | 1500                       | 1,005,000                    | 2,512.5                    | 23.35                                          |
| Waterbuck ... ..  | 500             | 1.25                    | 450                        | 225,000                      | 562.5                      | 5.23                                           |
| Wildebeest ... .. | 1,500           | 3.75                    | 400                        | 600,000                      | 1,500.0                    | 13.94                                          |
| Zebra ... ..      | 1,000           | 2.50                    | 475                        | 475,000                      | 1,187.5                    | 11.03                                          |
| Impala ... ..     | 12,000          | 30.00                   | 90                         | 1,080,000                    | 2,700.0                    | 25.09                                          |
| Kudu ... ..       | 400             | 1.00                    | 380                        | 144,000                      | 360.0                      | 3.35                                           |
| Nyala ... ..      |                 |                         | 120                        |                              |                            |                                                |
| White             |                 |                         |                            |                              |                            |                                                |
| Rhinoceros ...    |                 |                         | 3000                       |                              |                            |                                                |
| Reedbuck ... ..   | 20              | 0.05                    | 120                        | 2,400                        | 6.0                        | 0.06                                           |
| *Others ... ..    | 1,050           | 2.63                    | 50                         | 52,500                       | 131.3                      | 1.22                                           |
| TOTAL ... ..      | 17,815          | 44.55                   | 242                        | 4,304,500                    | 10,761.3                   | 100.00                                         |

\* \*Include: — Steenbuck, Sharpe's steenbuck, duiker, red duiker, warthog, bush pig, bushbuck, mountain reedbuck, klipspringer, suni, and oribi.  
Stocking rate of Area 8 is 44.55 animals (representative of a biomass of 10,761.3 lbs.) per square mile or per 302 morgen.

∴ 6.8 morgen per animal with a mean body weight of 242 lbs.  
Grazing potential thus available for an imaginary grazing and browsing animal of 273 lbs.\*\* would be 7.7 morgen per head.

\*\* The mean body weight per head of a total of 284,342 animals in the Kruger Park.

BIOMASS PER UNIT AREA FOR THE SEASONALLY DEMARCATED FEEDING  
GROUNDS OF ELEPHANTS IN THE KRUGER NATIONAL PARK.

AREA: 9.

SURFACE AREA: 90 sq. miles.

| Species                   | Total<br>Number | Density<br>per sq. mile | Mean body<br>weight (lbs.) | Biomass lbs.<br>(Total area) | Biomass per<br>square mile | Differential<br>percentage of<br>total biomass |
|---------------------------|-----------------|-------------------------|----------------------------|------------------------------|----------------------------|------------------------------------------------|
| Elephant ... ..           | 9               | 0.10                    | 7000                       | 63,000                       | 700.0                      | 3.39%                                          |
| Hippopotamus              | 155             | 1.72                    | 2500                       | 387,500                      | 4,305.6                    | 20.84                                          |
| Buffalo ... ..            |                 |                         | 1100                       |                              |                            |                                                |
| Roan antelope             |                 |                         | 500                        |                              |                            |                                                |
| Sable antelope            |                 |                         | 350                        |                              |                            |                                                |
| Eland ... ..              |                 |                         | 1000                       |                              |                            |                                                |
| Tsessebe ... ..           |                 |                         | 200                        |                              |                            |                                                |
| Giraffe ... ..            | 50              | 0.56                    | 1500                       | 75,000                       | 833.3                      | 4.03                                           |
| Waterbuck ... ..          | 50              | 0.56                    | 450                        | 22,500                       | 250.0                      | 1.21                                           |
| Wildebeest ... ..         | 100             | 1.11                    | 400                        | 40,000                       | 444.4                      | 2.15                                           |
| Zebra ... ..              | 100             | 1.11                    | 475                        | 47,500                       | 527.8                      | 2.55                                           |
| Impala ... ..             | 13,000          | 144.44                  | 90                         | 1,170,000                    | 13,000.0                   | 62.92                                          |
| Kudu ... ..               | 100             | 1.11                    | 380                        | 38,000                       | 422.2                      | 2.04                                           |
| Nyala ... ..              |                 |                         | 120                        |                              |                            |                                                |
| White<br>Rhinceros ... .. |                 |                         | 3000                       |                              |                            |                                                |
| Reedbuck ... ..           | 10              | 0.11                    | 120                        | 1,200                        | 13.3                       | 0.06                                           |
| *Others ... ..            | 300             | 3.33                    | 50                         | 15,000                       | 166.7                      | 0.81                                           |
| TOTAL ... ..              | 13,974          | 154.15                  | 134                        | 1,859,700                    | 20,663.3                   | 100.00                                         |

\* Includes — Steenbuck, Sharpe's steenbuck, duiker, red duiker, warthog, bush pig, bushbuck, mountain reedbuck, klipspringer, suni, and oribi.  
Stocking rate of Area 9 is 154.15 animals (representative of a biomass of 20,663.3 lbs.) per square mile or per 302 morgen.

∴ 1.96 morgen per animal with a mean body weight of 134 lbs.  
Grazing potential thus available for an imaginary grazing and browsing animal of 273 lbs.\*\* would be 4.0 morgen per head.

\*\* The mean body weight per head of a total of 284,342 animals in the Kruger Park.

**BIOMASS PER UNIT AREA FOR THE SEASONALLY DEMARCATED FEEDING  
GROUNDS OF ELEPHANTS IN THE KRUGER NATIONAL PARK.**

AREA: 10.

SURFACE AREA: 240 sq. miles.

| Species             | Total<br>Number | Density<br>per sq. mile | Mean body<br>weight (lbs.) | Biomass lbs.<br>(Total area) | Biomass per<br>square mile | Differential<br>percentage of<br>total biomass |
|---------------------|-----------------|-------------------------|----------------------------|------------------------------|----------------------------|------------------------------------------------|
| Elephant ... ..     | 22              | 0.09                    | 7000                       | 154,000                      | 641.7                      | 3.18%                                          |
| Hippopotamus        | 431             | 1.80                    | 2500                       | 1,077,500                    | 4,489.6                    | 22.24                                          |
| Buffalo ... ..      | 210             | 0.88                    | 1100                       | 231,000                      | 962.5                      | 4.77                                           |
| Roan antelope       |                 |                         | 500                        |                              |                            |                                                |
| Sable antelope      |                 |                         | 350                        |                              |                            |                                                |
| Eland ... ..        |                 |                         | 1000                       |                              |                            |                                                |
| Tsessebe ... ..     |                 |                         | 200                        |                              |                            |                                                |
| Giraffe ... ..      | 100             | 0.42                    | 1500                       | 150,000                      | 625.0                      | 3.10                                           |
| Waterbuck ... ..    | 75              | 0.31                    | 450                        | 33,750                       | 140.6                      | 0.70                                           |
| Wildebeest ... ..   | 100             | 0.42                    | 400                        | 40,000                       | 166.7                      | 0.83                                           |
| Zebra ... ..        | 200             | 0.83                    | 475                        | 95,000                       | 395.8                      | 1.96                                           |
| Impala ... ..       | 32,000          | 133.33                  | 90                         | 2,880,000                    | 12,000.0                   | 59.46                                          |
| Kudu ... ..         | 300             | 1.25                    | 380                        | 114,000                      | 475.0                      | 2.35                                           |
| Nyala ... ..        |                 |                         | 120                        |                              |                            |                                                |
| White               |                 |                         |                            |                              |                            |                                                |
| Rhinceros ...       | 10              | 0.04                    | 3000                       | 30,000                       | 125.0                      | 0.62                                           |
| Reedbuck ... ..     | 10              | 0.04                    | 120                        | 1,200                        | 5.0                        | 0.02                                           |
| *Others ... ..      | 750             | 3.13                    | 50                         | 37,500                       | 156.3                      | 0.77                                           |
| <b>TOTAL ... ..</b> | <b>34,208</b>   | <b>141.81</b>           | <b>142</b>                 | <b>4,843,950</b>             | <b>20,183.2</b>            | <b>100.00</b>                                  |

\* Includes — Steenbuck, Sharpe's steenbuck, duiker, red duiker, warthog, bush pig, bushbuck, mountain reedbuck, klipspringer, suni, and oribi.  
Stocking rate of Area 10 is 141.81 animals (representative of a biomass of 20,183.2 lbs.) per square mile or per 302 morgen.

∴ 2.13 morgen per animal with a mean body weight of 142 lbs.  
Grazing potential thus available for an imaginary grazing and browsing animal of 273 lbs.\*\* would be 4.1 morgen per head.

\*\* The mean body weight per head of a total of 284,342 animals in the Kruger Park.

**BIOMASS PER UNIT AREA FOR THE SEASONALLY DEMARCATED FEEDING  
GROUNDS OF ELEPHANTS IN THE KRUGER NATIONAL PARK.**

AREA: (a).

SURFACE AREA: 155 sq. miles.

| Species             | Total<br>Number | Density<br>per sq. mile | Mean body<br>weight (lbs.) | Biomass lbs.<br>(Total area) | Biomass per<br>square mile | Differential<br>percentage of<br>total biomass |
|---------------------|-----------------|-------------------------|----------------------------|------------------------------|----------------------------|------------------------------------------------|
| Elephant ... ..     |                 |                         | 7000                       |                              |                            |                                                |
| Hippopotamus        |                 |                         | 2500                       |                              |                            |                                                |
| Buffalo ... ..      |                 |                         | 1100                       |                              |                            |                                                |
| Roan antelope       |                 |                         | 500                        |                              |                            |                                                |
| Sable antelope      |                 |                         | 350                        |                              |                            |                                                |
| Eland ... ..        |                 |                         | 1000                       |                              |                            |                                                |
| Tsessebe ... ..     |                 |                         | 200                        |                              |                            |                                                |
| Giraffe ... ..      |                 |                         | 1500                       |                              |                            |                                                |
| Waterbuck ... ..    |                 |                         | 450                        |                              |                            |                                                |
| Wildebeest ... ..   |                 |                         | 400                        |                              |                            |                                                |
| Zebra ... ..        | 50              | 0.22                    | 475                        | 23,750                       | 153.2                      | 41.14%                                         |
| Impala ... ..       |                 |                         | 90                         |                              |                            |                                                |
| Kudu ... ..         | 50              | 0.22                    | 380                        | 19,000                       | 122.5                      | 32.89                                          |
| Nyala ... ..        |                 |                         | 120                        |                              |                            |                                                |
| White               |                 |                         |                            |                              |                            |                                                |
| Rhinoceros ...      |                 |                         | 3000                       |                              |                            |                                                |
| Reedbuck ... ..     |                 |                         | 120                        |                              |                            |                                                |
| *Others ... ..      | 300             | 1.94                    | 50                         | 15,000                       | 96.7                       | 25.97                                          |
| <b>TOTAL ... ..</b> | <b>400</b>      | <b>2.38</b>             | <b>156.5</b>               | <b>57,750</b>                | <b>372.4</b>               | <b>100.00</b>                                  |

\* Includes — Steenbuck, Sharpe's steenbuck, duiker, red duiker, warthog, bush pig, bushbuck, mountain reedbuck, klipspringer, suni, and oribi.  
Stocking rate of Area (a) is 2.38 animals (representative of a biomass of 372.4 lbs.) per square mile or per 302 morgen.

∴ 126.9 morgen per animal with a mean body weight of 156.5 lbs.  
Grazing potential thus available for an imaginary grazing and browsing animal of 273 lbs.\*\* would be 221.4 morgen per head.

\*\* The mean body weight per head of a total of 284,342 animals in the Kruger Park.

BIOMASS PER UNIT AREA FOR THE SEASONALLY DEMARCATED FEEDING  
GROUNDS OF ELEPHANTS IN THE KRUGER NATIONAL PARK.

AREA: (b).

SURFACE AREA: 140 sq. miles.

| Species           | Total<br>Number | Density<br>per sq. mile | Mean body<br>weight (lbs.) | Biomass lbs.<br>(Total area) | Biomass per<br>square mile | Differential<br>percentage of<br>total biomass |
|-------------------|-----------------|-------------------------|----------------------------|------------------------------|----------------------------|------------------------------------------------|
| Elephant ... ..   |                 |                         | 7000                       |                              |                            |                                                |
| Hippopotamus      |                 |                         | 2500                       |                              |                            |                                                |
| Buffalo ... ..    |                 |                         | 1100                       |                              |                            |                                                |
| Roan antelope     |                 |                         | 500                        |                              |                            |                                                |
| Sable antelope    | 20              | 0.14                    | 350                        | 7,000                        | 50.0                       | 3.28%                                          |
| Eland ... ..      | 40              | 0.29                    | 1000                       | 40,000                       | 285.7                      | 18.72                                          |
| Tsessebe ... ..   | 25              | 0.18                    | 200                        | 5,000                        | 35.7                       | 2.34                                           |
| Giraffe ... ..    |                 |                         | 1500                       |                              |                            |                                                |
| Waterbuck ... ..  | 50              | 0.36                    | 450                        | 22,500                       | 160.7                      | 10.53                                          |
| Wildebeest ... .. |                 |                         | 400                        |                              |                            |                                                |
| Zebra ... ..      |                 |                         | 475                        |                              |                            |                                                |
| Impala ... ..     | 1,000           | 7.14                    | 90                         | 90,000                       | 642.9                      | 42.11                                          |
| Kudu ... ..       | 100             | 0.71                    | 380                        | 38,000                       | 271.4                      | 17.78                                          |
| Nyala ... ..      |                 |                         | 120                        |                              |                            |                                                |
| White             |                 |                         |                            |                              |                            |                                                |
| Rhinoceros ...    |                 |                         | 3000                       |                              |                            |                                                |
| Reedbuck ... ..   | 10              | 0.07                    | 120                        | 1,200                        | 8.6                        | 0.56                                           |
| *Others ... ..    | 200             | 1.43                    | 50                         | 10,000                       | 71.4                       | 4.68                                           |
| TOTAL ... ..      | 1,445           | 10.32                   | 147.9                      | 213,700                      | 1,526.4                    | 100.00                                         |

\* Includes — Steenbuck, Sharpe's steenbuck, duiker, red duiker, warthog, bush pig, bushbuck, mountain reedbuck, klipspringer, suni, and oribi.  
Stocking rate of Area (b) is 10.32 animals (representative of a biomass of 1,526.4 lbs.) per square mile or per 302 morgen.

∴ 29.26 morgen per animal with a mean body weight of 147.9 lbs.  
Grazing potential thus available for an imaginary grazing and browsing animal of 273 lbs.\*\* would be 54.0 morgen per head.

\*\* The mean body weight per head of a total of 284,342 animals in the Kruger Park.



Fig. 1.—Large herd of buffalo stampeded by helicopter. Counting is easily facilitated by a transparent perspex grid.



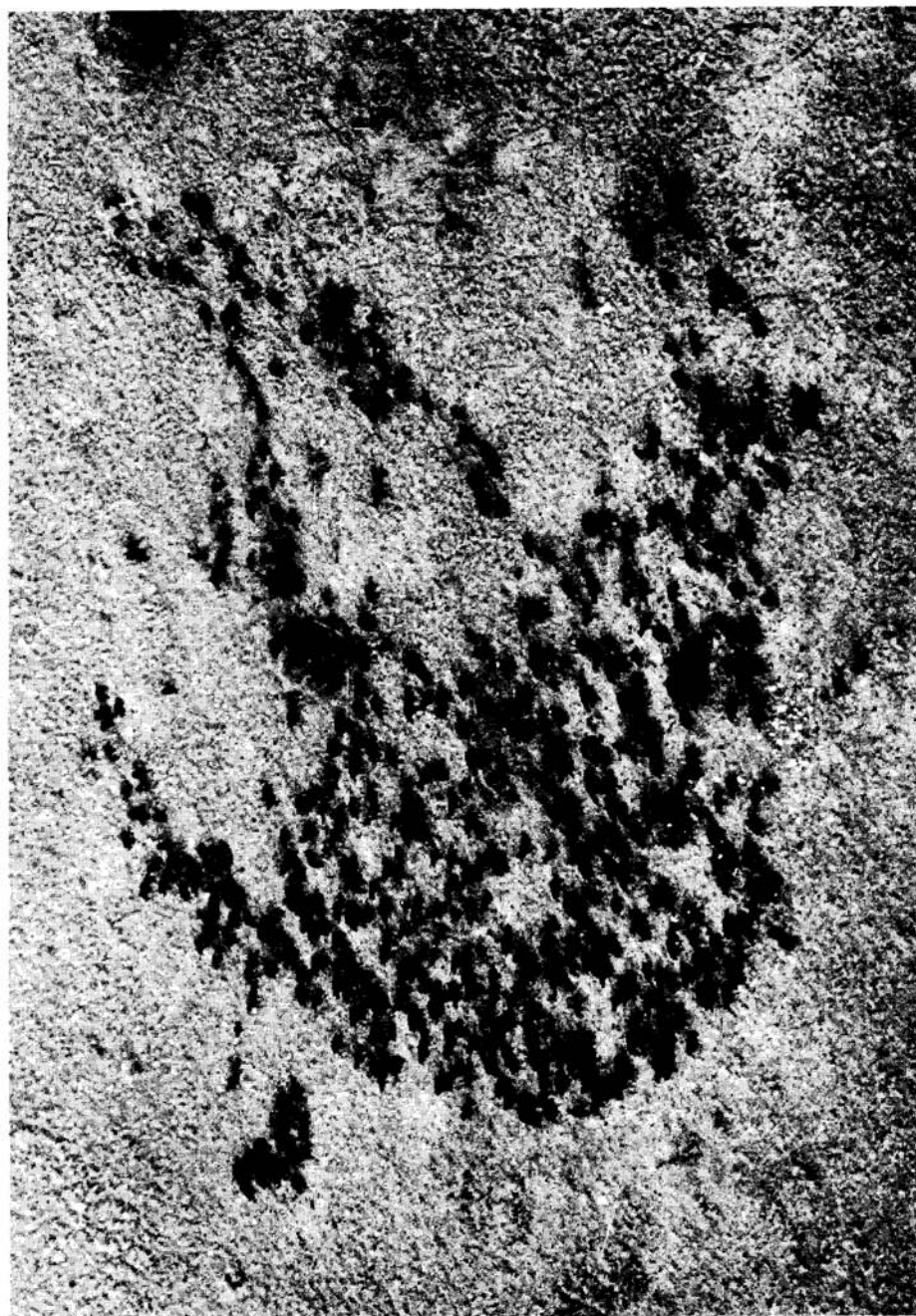


Fig. 2.—Large herd of buffalo photographed from the air while grazing at Gomondwane.  
White spots are cattle egrets.



Fig. 3.—Small breeding herd of elephants comprising 4 adult cows, 4 sub-adults and 1 young calf.



Fig. 4.—Large breeding herd stampeding, and photographed from behind. Few small calves evident in this herd, but sub-adults well represented.



Fig. 5.—Portion of a large breeding herd of elephant photographed from a helicopter during the aerial survey. Herd structure is again clearly depicted.





Fig. 6.—Helicopter used in the survey.

**BIOMASS PER UNIT AREA FOR THE SEASONALLY DEMARCATED FEEDING  
GROUNDS OF ELEPHANTS IN THE KRUGER NATIONAL PARK.**

AREA: (c).

SURFACE AREA: 340 sq. miles.

| Species                    | Total<br>Number | Density<br>per sq. mile | Mean body<br>weight (lbs.) | Biomass lbs.<br>(Total area) | Biomass per<br>square mile | Differential<br>percentage of<br>total biomass |
|----------------------------|-----------------|-------------------------|----------------------------|------------------------------|----------------------------|------------------------------------------------|
| Elephant ... ..            |                 |                         | 7000                       |                              |                            |                                                |
| Hippopotamus               |                 |                         | 2500                       |                              |                            |                                                |
| Buffalo ... ..             |                 |                         | 1100                       |                              |                            |                                                |
| Roan antelope              |                 |                         | 500                        |                              |                            |                                                |
| Sable antelope             |                 |                         | 350                        |                              |                            |                                                |
| Eland ... ..               |                 |                         | 1000                       |                              |                            |                                                |
| Tsessebe ... ..            |                 |                         | 200                        |                              |                            |                                                |
| Giraffe ... ..             |                 |                         | 1500                       |                              |                            |                                                |
| Waterbuck ... ..           |                 |                         | 450                        |                              |                            |                                                |
| Wildebeest ... ..          |                 |                         | 400                        |                              |                            |                                                |
| Zebra ... ..               |                 |                         | 475                        |                              |                            |                                                |
| Impala ... ..              |                 |                         | 90                         |                              |                            |                                                |
| Kudu ... ..                | 150             | 0.44                    | 380                        | 57,000                       | 167.6                      | 82.04%                                         |
| Nyala ... ..               |                 |                         | 120                        |                              |                            |                                                |
| White<br>Rhinoceros ... .. |                 |                         | 3000                       |                              |                            |                                                |
| Reedbuck ... ..            |                 |                         | 120                        |                              |                            |                                                |
| *Others ... ..             | 250             | 0.74                    | 50                         | 12,500                       | 36.7                       | 17.96                                          |
| <b>TOTAL ... ..</b>        | <b>400</b>      | <b>1.18</b>             | <b>173.1</b>               | <b>69,500</b>                | <b>204.3</b>               | <b>100.00</b>                                  |

\* Includes — Steenbuck, Sharpe's steenbuck, duiker, red duiker, warthog, bush pig, bushbuck, mountain reedbuck, klipspringer, suni, and oribi.  
Stocking rate of Area (c) is 1.18 animals (representative of a biomass of 204.3 lbs.) per square mile or per 302 morgen.

∴ 256 morgen per animal with a mean body weight of 173.1 lbs.  
Grazing potential thus available for an imaginary grazing and browsing animals of 273 lbs.\*\* would be 303.7 morgen per head.

\*\* The mean body weight per head of a total of 284,342 animals in the Kruger Park.

BIOMASS PER UNIT AREA FOR THE SEASONALLY DEMARCATED FEEDING  
GROUNDS OF ELEPHANTS IN THE KRUGER NATIONAL PARK.

AREA: (d).

SURFACE AREA: 50 sq. miles.

| Species                    | Total<br>Number | Density<br>per sq. mile | Mean body<br>weight (lbs.) | Biomass lbs.<br>(Total area) | Biomass per<br>square mile | Differential<br>percentage of<br>total biomass |
|----------------------------|-----------------|-------------------------|----------------------------|------------------------------|----------------------------|------------------------------------------------|
| Elephant ... ..            |                 |                         | 7000                       |                              |                            |                                                |
| Hippopotamus               |                 |                         | 2500                       |                              |                            |                                                |
| Buffalo ... ..             |                 |                         | 1100                       |                              |                            |                                                |
| Roan antelope              |                 |                         | 500                        |                              |                            |                                                |
| Sable antelope             |                 |                         | 350                        |                              |                            |                                                |
| Eland ... ..               |                 |                         | 1000                       |                              |                            |                                                |
| Tsessebe ... ..            |                 |                         | 200                        |                              |                            |                                                |
| Giraffe ... ..             |                 |                         | 1500                       |                              |                            |                                                |
| Waterbuck ... ..           | 100             | 2.00                    | 450                        | 45,000                       | 900                        | 40.18%                                         |
| Wildebeest ... ..          |                 |                         | 400                        |                              |                            |                                                |
| Zebra ... ..               | 100             | 2.00                    | 475                        | 47,500                       | 950                        | 42.41                                          |
| Impala ... ..              |                 |                         | 90                         |                              |                            |                                                |
| Kudu ... ..                | 25              | 0.50                    | 380                        | 9,500                        | 190                        | 8.48                                           |
| Nyala ... ..               |                 |                         | 120                        |                              |                            |                                                |
| White<br>Rhinoceros ... .. |                 |                         | 3000                       |                              |                            |                                                |
| Reedbuck ... ..            |                 |                         | 120                        |                              |                            |                                                |
| *Others ... ..             | 200             | 4.00                    | 50                         | 10,000                       | 200                        | 8.93                                           |
| TOTAL ... ..               | 425             | 8.50                    | 263.5                      | 112,000                      | 2,240                      | 100.00                                         |

\* Includes — Steenbuck, Sharpe's steenbuck, duiker, red duiker, warthog, bush pig, bushbuck, mountain reedbuck, klipspringer, suni, and oribi.  
Stocking rate of Area (d) is 8.5 animals (representative of a biomass of 2,240 lbs.) per square mile or per 302 morgen.

∴ 35.5 morgen per animal with a mean body weight of 263.5 lbs.  
Grazing potential thus available for an imaginary grazing and browsing animal of 273 lbs.\*\* would be 36.8 morgen per head.

\*\* The mean body weight per head of a total of 284,342 animals in the Kruger Park.

BIOMASS PER UNIT AREA FOR THE SEASONALLY DEMARCATED FEEDING  
GROUNDS OF ELEPHANTS IN THE KRUGER NATIONAL PARK.

AREA: (e).

SURFACE AREA: 70 sq. miles.

| Species                 | Total<br>Number | Density<br>per sq. mile | Mean body<br>weight (lbs.) | Biomass lbs.<br>(Total area) | Biomass per<br>square mile | Differential<br>percentage of<br>total biomass |
|-------------------------|-----------------|-------------------------|----------------------------|------------------------------|----------------------------|------------------------------------------------|
| Elephant ... ..         |                 |                         | 7000                       |                              |                            |                                                |
| Hippopotamus            |                 |                         | 2500                       |                              |                            |                                                |
| Buffalo ... ..          |                 |                         | 1100                       |                              |                            |                                                |
| Roan antelope           | 8               | 0.11                    | 500                        | 4,000                        | 57.1                       | 17.38 %                                        |
| Sable antelope          | 20              | 0.29                    | 350                        | 7,000                        | 100.0                      | 30.44                                          |
| Eland ... ..            |                 |                         | 1000                       |                              |                            |                                                |
| Tsessebe ... ..         |                 |                         | 200                        |                              |                            |                                                |
| Giraffe ... ..          |                 |                         | 1500                       |                              |                            |                                                |
| Waterbuck ... ..        |                 |                         | 450                        |                              |                            |                                                |
| Wildebeest ... ..       |                 |                         | 400                        |                              |                            |                                                |
| Zebra ... ..            |                 |                         | 475                        |                              |                            |                                                |
| Impala ... ..           |                 |                         | 90                         |                              |                            |                                                |
| Kudu ... ..             | 25              | 0.36                    | 380                        | 9,500                        | 135.7                      | 41.31                                          |
| Nyala ... ..            |                 |                         | 120                        |                              |                            |                                                |
| White<br>Rhinoceros ... |                 |                         | 3000                       |                              |                            |                                                |
| Reedbuck ... ..         |                 |                         | 120                        |                              |                            |                                                |
| *Others ... ..          | 50              | 0.71                    | 50                         | 2,500                        | 35.7                       | 10.87                                          |
| <b>TOTAL ... ..</b>     | <b>103</b>      | <b>1.47</b>             | <b>223.5</b>               | <b>23,000</b>                | <b>328.5</b>               | <b>100.00</b>                                  |

\* Includes — Steenbuck, Sharpe's steenbuck, duiker, red duiker, warthog, bush pig, bushbuck, mountain reedbuck, klipspringer, suni, and oribi.  
Stocking rate of Area (e) is 1.47 animals (representative of a biomass of 328.5 lbs.) per square mile or per 302 morgen.

∴ 205.4 morgen per animal with a mean body weight of 223.5 lbs.  
Grazing potential thus available for an imaginary grazing and browsing animal of 273 lbs.\*\* would be 250.9 morgen per head.

\*\* The mean body weight per head of a total of 284,342 animals in the Kruger Park.



BIOMASS PER UNIT AREA FOR THE SEASONALLY DEMARCATED FEEDING  
GROUNDS OF ELEPHANTS IN THE KRUGER NATIONAL PARK.

AREA: (f).

SURFACE AREA: 140 sq. miles.

| Species             | Total<br>Number | Density<br>per sq. mile | Mean body<br>weight (lbs.) | Biomass lbs.<br>(Total area) | Biomass per<br>square mile | Differential<br>percentage of<br>total biomass |
|---------------------|-----------------|-------------------------|----------------------------|------------------------------|----------------------------|------------------------------------------------|
| Elephant            |                 |                         | 7000                       |                              |                            |                                                |
| Hippopotamus        |                 |                         | 2500                       |                              |                            |                                                |
| Buffalo             |                 |                         | 1100                       |                              |                            |                                                |
| Roan antelope       |                 |                         | 500                        |                              |                            |                                                |
| Sable antelope      |                 |                         | 350                        |                              |                            |                                                |
| Eland               |                 |                         | 1000                       |                              |                            |                                                |
| Tsessebe            |                 |                         | 200                        |                              |                            |                                                |
| Giraffe             | 50              | 0.36                    | 1500                       | 75,000                       | 535.7                      | 58.13%                                         |
| Waterbuck           |                 |                         | 450                        |                              |                            |                                                |
| Wildebeest          |                 |                         | 400                        |                              |                            |                                                |
| Zebra               |                 |                         | 475                        |                              |                            |                                                |
| Impala              | 200             | 1.43                    | 90                         | 18,000                       | 128.5                      | 13.95                                          |
| Kudu                | 75              | 0.54                    | 380                        | 28,500                       | 203.6                      | 22.10                                          |
| Nyala               |                 |                         | 120                        |                              |                            |                                                |
| White<br>Rhinoceros |                 |                         | 3000                       |                              |                            |                                                |
| Reedbuck            |                 |                         | 120                        |                              |                            |                                                |
| *Others             | 150             | 1.07                    | 50                         | 7,500                        | 53.6                       | 5.82                                           |
| TOTAL               | 475             | 3.40                    | 271                        | 129,000                      | 921.4                      | 100.00                                         |

\* Includes — Steenbuck, Sharpa's steenbuck, duiker, red duiker, warthog, bush pig, bushbuck, mountain reedbuck, klipspringer, suni, and oribi.  
Stocking rate of Area (f) is 3.4 animals (representative of a biomass of 921.4 lbs.) per square mile or per 302 morgen.

∴ 88.8 morgen per animal with a mean body weight of 271 lbs.  
Grazing potential thus available for an imaginary grazing and browsing animal of 273 lbs.\*\* would be 89.5 morgen per head.

\*\* The mean body weight per head of a total of 284,342 animals in the Kruger Park.

BIOMASS PER UNIT AREA FOR THE SEASONALLY DEMARCATED FEEDING  
GROUNDS OF ELEPHANTS IN THE KRUGER NATIONAL PARK.

AREA: (g).

SURFACE AREA: 25 sq. miles.

| Species                    | Total<br>Number | Density<br>per sq. mile | Mean body<br>weight (lbs.) | Biomass lbs.<br>(Total area) | Biomass per<br>square mile | Differential<br>percentage of<br>total biomass |
|----------------------------|-----------------|-------------------------|----------------------------|------------------------------|----------------------------|------------------------------------------------|
| Elephant ... ..            |                 |                         | 7000                       |                              |                            |                                                |
| Hippopotamus               |                 |                         | 2500                       |                              |                            |                                                |
| Buffalo ... ..             |                 |                         | 1100                       |                              |                            |                                                |
| Roan antelope              | 10              | 0.40                    | 500                        | 5,000                        | 200                        | 5.02%                                          |
| Sable antelope             | 10              | 0.40                    | 350                        | 3,500                        | 140                        | 3.51                                           |
| Eland ... ..               |                 |                         | 1000                       |                              |                            |                                                |
| Tsessebe ... ..            | 10              | 0.40                    | 200                        | 2,000                        | 80                         | 2.01                                           |
| Giraffe ... ..             | 10              | 0.40                    | 1500                       | 15,000                       | 600                        | 15.06                                          |
| Waterbuck ... ..           |                 |                         | 450                        |                              |                            |                                                |
| Wildebeest ... ..          |                 |                         | 400                        |                              |                            |                                                |
| Zebra ... ..               | 100             | 4.00                    | 475                        | 47,500                       | 1,900                      | 47.69                                          |
| Impala ... ..              | 200             | 8.00                    | 90                         | 18,000                       | 720                        | 18.08                                          |
| Kudu ... ..                | 20              | 0.80                    | 380                        | 7,600                        | 304                        | 7.63                                           |
| Nyala ... ..               |                 |                         | 120                        |                              |                            |                                                |
| White<br>Rhinoceros ... .. |                 |                         | 3000                       |                              |                            |                                                |
| Reedbuck ... ..            |                 |                         | 120                        |                              |                            |                                                |
| *Others ... ..             | 20              | 0.80                    | 50                         | 1,000                        | 40                         | 1.00                                           |
| TOTAL ... ..               | 380             | 15.20                   | 262.1                      | 99,600                       | 3,984.0                    | 100.00                                         |

\* Includes — Steenbuck, Sharpe's steenbuck, duiker, red duiker, warthog, bush pig, bushbuck, mountain reedbuck, klipspringer, suni, and oribi.  
Stocking rate of Area (g) is 15.2 animals (representative of a biomass of 3,984.0 lbs.) per square mile or per 302 morgen.

∴ 19.9 morgen per animal with a mean body weight of 262.1 lbs.  
Grazing potential thus available for an imaginary grazing and browsing animal of 273 lbs.\*\* would be 20.7 morgen per head.

\*\* The mean body weight per head of a total of 284,342 animals in the Kruger Park.

**BIOMASS PER UNIT AREA FOR THE SEASONALLY DEMARCATED FEEDING  
GROUNDS OF ELEPHANTS IN THE KRUGER NATIONAL PARK.**

AREA: (h).

SURFACE AREA: 550 sq. miles.

|                    | Total<br>Number | Density<br>per sq. mile | Mean body<br>weight (lbs.) | Biomass lbs.<br>(Total area) | Biomass per<br>square mile | Differential<br>percentage of<br>total biomass |
|--------------------|-----------------|-------------------------|----------------------------|------------------------------|----------------------------|------------------------------------------------|
| Elephant           |                 |                         | 7000                       |                              |                            |                                                |
| Hippopotamus       |                 |                         | 2500                       |                              |                            |                                                |
| Buffalo            | 336             | 0.61                    | 1100                       | 369,600                      | 672.0                      | 23.77%                                         |
| Roan antelope      | 3               | 0.01                    | 500                        | 1,500                        | 2.7                        | 0.10                                           |
| Sable antelope     | 83              | 0.15                    | 350                        | 29,050                       | 52.8                       | 1.87                                           |
| Eland              |                 |                         | 1000                       |                              |                            |                                                |
| Tsessebe           | 40              | 0.07                    | 200                        | 8,000                        | 14.5                       | 0.51                                           |
| Giraffe            | 270             | 0.50                    | 1500                       | 405,000                      | 736.4                      | 26.05                                          |
| Waterbuck          |                 |                         | 450                        |                              |                            |                                                |
| Wildebeest         | 500             | 0.91                    | 400                        | 200,000                      | 363.6                      | 12.86                                          |
| Zebra              | 200             | 0.36                    | 475                        | 95,000                       | 172.7                      | 6.11                                           |
| Impala             | 3,200           | 5.82                    | 90                         | 288,000                      | 523.6                      | 18.52                                          |
| Kudu               | 270             | 0.50                    | 380                        | 102,600                      | 186.5                      | 6.60                                           |
| Nyala              |                 |                         | 120                        |                              |                            |                                                |
| White<br>Rhinceros |                 |                         | 3000                       |                              |                            |                                                |
| Reedbuck           | 50              | 0.09                    | 120                        | 6,000                        | 10.9                       | 0.39                                           |
| *Others            | 1,000           | 1.81                    | 50                         | 50,000                       | 90.9                       | 3.22                                           |
| <b>TOTAL</b>       | <b>6,052</b>    | <b>10.83</b>            | <b>261</b>                 | <b>1,554,750</b>             | <b>2,826.6</b>             | <b>100.00</b>                                  |

\* Includes — Steenbuck, Sharpe's steenbuck, duiker, red duiker, warthog, bush pig, bushbuck, mountain reedbuck, klipspringer, suni, and oribi.  
Stocking rate of Area (h) is 10.83 animals (representative of a biomass of 2,826.6 lbs.) per square mile or per 302 morgen.

∴ 27.9 morgen per animal with a mean body weight of 261 lbs.  
Grazing potential thus available for an imaginary grazing and browsing animal of 273 lbs.\*\* would be 29.2 morgen per head.

\*\* The mean body weight per head of a total of 284,342 animals in the Kruger Park.

**BIOMASS PER UNIT AREA FOR THE SEASONALLY DEMARCATED FEEDING  
GROUNDS OF ELEPHANTS IN THE KRUGER NATIONAL PARK.**

AREA: (i).

SURFACE AREA: 620 sq. miles.

| Species             | Total<br>Number | Density<br>per sq. mile | Mean body<br>weight (lbs.) | Biomass lbs.<br>(Total area) | Biomass per<br>square mile | Differential<br>percentage of<br>total biomass |
|---------------------|-----------------|-------------------------|----------------------------|------------------------------|----------------------------|------------------------------------------------|
| Elephant ... ..     |                 |                         | 7000                       |                              |                            |                                                |
| Hippopotamus        |                 |                         | 2500                       |                              |                            |                                                |
| Buffalo ... ..      | 460             | 0.74                    | 1100                       | 506,000                      | 816.1                      | 24.85%                                         |
| Roan antelope       |                 |                         | 500                        |                              |                            |                                                |
| Sable antelope      | 80              | 0.13                    | 350                        | 28,000                       | 45.2                       | 1.38                                           |
| Eland ... ..        |                 |                         | 1000                       |                              |                            |                                                |
| Tsessebe ... ..     |                 |                         | 200                        |                              |                            |                                                |
| Giraffe ... ..      | 200             | 0.32                    | 1500                       | 300,000                      | 483.9                      | 14.74                                          |
| Waterbuck ... ..    | 70              | 0.11                    | 450                        | 31,500                       | 50.8                       | 1.55                                           |
| Wildebeest ... ..   | 200             | 0.32                    | 400                        | 80,000                       | 129.0                      | 3.93                                           |
| Zebra ... ..        | 350             | 0.56                    | 475                        | 166,250                      | 268.1                      | 8.17                                           |
| Impala ... ..       | 7,000           | 11.29                   | 90                         | 630,000                      | 1,016.1                    | 30.95                                          |
| Kudu ... ..         | 300             | 0.48                    | 380                        | 114,000                      | 183.9                      | 5.60                                           |
| Nyala ... ..        |                 |                         | 120                        |                              |                            |                                                |
| White               |                 |                         |                            |                              |                            |                                                |
| Rhinoceros ...      | 33              | 0.05                    | 3000                       | 99,000                       | 159.7                      | 4.86                                           |
| Reedbuck ... ..     | 50              | 0.08                    | 120                        | 6,000                        | 9.7                        | 0.30                                           |
| *Others ... ..      | 1,500           | 2.42                    | 50                         | 75,000                       | 121.0                      | 3.69                                           |
| <b>TOTAL ... ..</b> | <b>10,243</b>   | <b>16.50</b>            | <b>199.0</b>               | <b>2,035,750</b>             | <b>3,283.5</b>             | <b>100.02</b>                                  |

\* Includes — Steenbuck, Sharpe's steenbuck, duiker, red duiker, warthog, bush pig, bushbuck, mountain reedbuck, klipspringer, suni, and oribi.  
Stocking rate of Area (i) is 16.5 animals (representative of a biomass of 3,283.5 lbs.) per square mile or per 302 morgen.

∴ 18.3 morgen per animal with a mean body weight of 199.0 lbs.  
Grazing potential thus available for an imaginary grazing and browsing animal of 273 lbs.\*\* would be 25.1 morgen per head.

\*\* The mean body weight per head of a total of 284,342 animals in the Kruger Park.

BIOMASS PER UNIT AREA FOR THE SEASONALLY DEMARCATED FEEDING  
GROUNDS OF ELEPHANTS IN THE KRUGER NATIONAL PARK.

AREA: (j).

SURFACE AREA: 40 sq. miles.

|                   | Total<br>Number | Density<br>per sq. mile | Mean body<br>weight (lbs.) | Biomass lbs.<br>(Total area) | Biomass per<br>square mile | Differential<br>percentage of<br>total biomass |
|-------------------|-----------------|-------------------------|----------------------------|------------------------------|----------------------------|------------------------------------------------|
| Elephant ... ..   |                 |                         | 7000                       |                              |                            |                                                |
| Hippopotamus      | 25              | 0.63                    | 2500                       | 62,500                       | 1,562.5                    | 22.50%                                         |
| Buffalo ... ..    | 50              | 1.25                    | 1100                       | 55,000                       | 1,375.0                    | 19.80                                          |
| Roan antelope     |                 |                         | 500                        |                              |                            |                                                |
| Sable antelope    |                 |                         | 350                        |                              |                            |                                                |
| Eland ... ..      |                 |                         | 1000                       |                              |                            |                                                |
| Tsessebe ... ..   |                 |                         | 200                        |                              |                            |                                                |
| Giraffe ... ..    | 20              | 0.50                    | 1500                       | 30,000                       | 750.0                      | 10.80                                          |
| Waterbuck ... ..  | 40              | 1.00                    | 450                        | 18,000                       | 450.0                      | 6.48                                           |
| Wildebeest ... .. |                 |                         | 400                        |                              |                            |                                                |
| Zebra ... ..      | 50              | 1.25                    | 475                        | 23,750                       | 593.8                      | 8.55                                           |
| Impala ... ..     | 500             | 12.50                   | 90                         | 45,000                       | 1,125.0                    | 16.20                                          |
| Kudu ... ..       | 75              | 1.88                    | 380                        | 28,500                       | 712.5                      | 10.26                                          |
| Nyala ... ..      |                 |                         | 120                        |                              |                            |                                                |
| White             |                 |                         |                            |                              |                            |                                                |
| Rhinceros ...     |                 |                         | 3000                       |                              |                            |                                                |
| Reedbuck ... ..   |                 |                         | 120                        |                              |                            |                                                |
| *Others ... ..    | 300             | 7.50                    | 50                         | 15,000                       | 375.0                      | 5.40                                           |
| TOTAL ... ..      | 1,060           | 26.51                   | 261.9                      | 277,750                      | 6,943.8                    | 99.99                                          |

\* Includes — Steenbuck, Sharpe's steenbuck, duiker, red duiker, warthog, bush pig, bushbuck, mountain reedbuck, klipspringer, suni, and oribi.  
Stocking rate of Area (j) is 26.51 animals (representative of a biomass of 6,943.8 lbs.) per square mile or per 302 morgen.

∴ 13.9 morgen per animal with a mean body weight of 261.9 lbs.  
Grazing potential thus available for an imaginary grazing and browsing animal of 273 lbs.\*\* would be 14.5 morgen per head.

\*\* The mean body weight per head of a total of 284,342 animals in the Kruger Park.

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