

STATUS REPORT: RHINOS IN BOTSWANA

19 JB

INTRODUCTION:

Black Rhinos (Diceros binocornis) and white Rhinos (Ceratotherium simum) used to be very common in Botswana before the beginning of the present century. Hunting pressure from man after 1820, however, reduced their numbers to such low levels that the white Rhino had become extinct in Botswana by 1900. The Black Rhino also continued to suffer a steep decline in numbers during the same period (Smithers 1983).

A program of re-introductions of white Rhinos into Botswana was started as far back as 1967 from Hluhluwe and Umfolozi Game Reserves in South Africa. At the time, four white Rhinos were introduced into the Chobe National Park and paddocked near Serondella and later released. Five more white Rhinos were released in the Chobe National Park in 1970. Between 1974 and 1976, a total of 55 white Rhinos were introduced into Northern Botswana (Chobe National Park 37, Moremi Game Reserve 14, and Maun Wildlife Education Park 4). Further introductions (92) were made into the Chobe National Park and Moremi Game Reserve. Of these lot, the last seven were released into the Chobe National Park in August 1982.

The Black Rhino in Botswana has never had the fortune of revival by any reintroductions. The Black Rhinos in Botswana therefore, have a very doubtful future and face eminent extinction. Re-introductions of the Black Rhino probably on a scale like that of the white Rhino would certainly help the situation.

PRESENT STATUS (WHITE RHINOS)

NUMBERS

Melton in 1982 estimated that the population size in the Chobe National Park and surrounding area was around 100. The Kalahari Conservation Society in their April 1985 report based on aerial surveys of Northern Botswana, put the number of white Rhino at between 100 and 150. Recent surveys (1987) by the department of Wildlife and National Parks yield a figure around 120.

These estimates of the number of white Rhinos in Northern Botswana are all based on aerial surveys with fixed wing aircraft and could be misleading. To have a more realistic idea of the actual number of white Rhinos in Northern Botswana it would be necessary to carry out the surveys

from helicopters. It has been conclusively demonstrated in the past that surveys of Rhinos from fixed Wing aircraft are usually very inaccurate. Estimates from fixed wing aircraft often count less than 60% of the Rhinos that can be counted when helicopters are used and helicopters, at their maximum, are known to count only 90% of the Rhinos that are actually present: (GODDARD, J. 1967, Norman Owen-Smith 1981). Additionally, the fixed wing aircraft surveys in Northern Botswana were of uniform coverage in multi-species surveys. The white Rhinos are now known to be concentrated in certain preferred habitats and a stratified sampling focused on these areas of high concentration would give a better picture of the number of Rhinos present. This would also reduce the rather large confidence limits that have plagued all past Rhino estimates in Northern Botswana.

DISTRIBUTION

Apart from some white Rhino sighted in the Moremi Game Reserve, almost all the white Rhinos found in Botswana are restricted to the Chobe District. The distribution and relative abundance, based on the frequency of sightings is shown on the attached map.

Within the Chobe District, the majority of re-introduced white Rhinos have 'safely' ensconced themselves within the Chobe National Park. Within the Chobe National Park, the

white Rhinos are again very selective in the habit types they occupy. Generally, they prefer areas with pans; specifically showing the tendency to stay around pans that are fairly big and which retain water for most of, or throughout the year. Additionally, these pans must have open grassy plains around them with some trees and shrubs to provide shade. This is the sort of habit found around Ngwezumba in the Nogatshaa-Tambico-Chinga-Poha-Namuchira-Ngwezumba Dam-Kwikapa Complex, and along the length of the Ngwezumba valley. The area has many pans and sips and is characterised by libalalas, with Mopane and combretum woodland and many open grassy plains. A population nucleus has been established around the Ngwezumba Dam sips which radiates into the above complex. Other Rhino areas run along the Ngwezumba river valley where there are big pools, through Kowawe pan Southward to Zweizwei and Gamtsha pans and into the Savuti area.

The highest concentration of Rhinos is found in the Ngwezumba dam complex. This is undoubtedly boosted by the minimum of disturbance the area experiences during the rainy season when the roads in the area become immotorable. In addition, during very dry years, there is always water available at the Ngwezumba dam sips and artificially at Nogatshaa and Chinga. The sips at Ngwezumba are however, the preferred watering sites. Another area with some Rhinos is on the

Chobe flats to the east of the Linyanti and to the South of the Kwando. Though the habitat around these parts are good for Rhinos, the Rhinos are not very safe because of hunting activities in the area and harrssment from Caprivian Poachers.

There are also resident populations of white Rhinos just back from the Chobe river front, and at Kazuma pan.

MOVEMENTS

Though restricted to specific areas for most of the year the white Rhinos do move from these areas when pans dry up. The movements are towards areas of permanent water at the Chobe river front, the Linyanti-Kwando river systems and to the sips at Ngwezumba. At such times the Rhinos have been observed moving in groups of up to six animals. There are also known movements of Rhinos between Botswana and Zimbabwe at Lesoma, Kazuma Forest and Nunga area. Local movements of the Rhinos resident on the Chobe river front are also known. Here the Rhinos can usually be found at Simwanza dam in the months of November to May. From here they move to Puku flats and Serondella Airstrip by June. From Serondella, the Rhinos move to water cart road in July where they remain until October when they move back to 'Rhino Pen' near Serondella, route 15 and 16 and back at Simwanza dam by November where they remain until April-May when the round trip is again repeated. After October-November most of the pans just back from the river front are holding water and the Rhinos do not go to the Chobe river front to water.

POPULATION CONDITION:

The drought in the Chobe District does not seem to have affected the white Rhinos at all in terms of a deterioration in body condition. All live Rhinos sighted have been in good condition.

NATALITY

If natality and rearing success are any indication of population health, then one can safely say that the re-introduced white Rhinos in Northern Botswana are in top form. It is quite noticeable that almost all adult females that have been seen have calves ranging in age from newly borns to 3 year olds. A detailed age structure analysis is being worked out from photographs that have been taken of individuals and groups. This is being supplemented by spoor measurements in the field of Rhinos that have not been seen but are known to be present in certain areas.

MORTALITIES

Information on mortalities comes mainly from horns of dead Rhinos retrieved in the field. Since Botswana does not trade or deal in any Rhino product, all horns retrieved are stored in safe keeping. Presently 22 pairs of horns are in store. From the length measurements of the horns, it is clear that most of them died as adults, except for three which died as sub-adults and one which died as an immature.

POACHING

In 1987 4 dead Rhinos were found and the horns retrieved. One of these died on the

Chobe river front as an adult male (cause of death unknown)
One was killed as an immature at Chinga by lions. Two died
in the Linyanti area from poachers guns. In one of these
cases the poachers were apprehended. It is known that
poachers come in regularly from the Caprivi side of the Linyanti
and Kwando to kill different kinds of animals on the Botswana
side from the evidence they leave behind and the gun shots
that are heard out of the hunting season. The Rhinos in the
Linyanti-Kwando regions are therefore not very safe. There
are probaly several other cases of Rhinos being poached
without the department of Wildlife and National Parks
knowing.

It is during the period of water shortage that the Rhinos
become most vulnerable. They move in groups and visit
specific watering points regularly. In this light the
Ngwezumba Rhinos are in potential danger. The high conce-
ntration of Rhinos here would make them easy targets for
poachers during the dry season. Not many tourist visit the area
and Game scout patrols in the area are limited. To protect
the Rhinos in the area it is necessary to establish a camp
in the area, preferably at Mapororo Pan and station Game
scouts there. They would need a vehicle and a radio. The
sole responsibility of these Gamescouts would be to patrol
the Ngwezumba complex and the eastern part of the Park where
it is known that some paching goes on. It would also be
necessary to ensure that the fire breaks are properly
maintained and that there is water always available at the
Ngwezumba dam and in some of the pans in the area. This
would eliminate or reduce the chances of the Rhinos moving

out into dangerous areas where they could become victims of poachers guns.

THE BLACK RHINO:

In the past two years, only three confirmed Black Rhino sightings are known. One was an adult male near Linyanti camp another was of a female with a calf also around Linyanti. The third sighting was of a male at Kwikampa. Spoor of the Black Rhino have however been seen along the Savuti Channel and towards James Camp on the Kwando. Spoor of two toher black Rhinos were seen on the road between the Ngwezumba river drift and Ngwezumba dam.

MAY 1988

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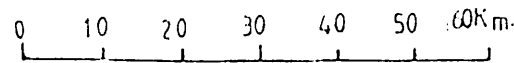
AREAS OF WHITE RHINO SIGHTINGS: 1987

1. MAGWIKHWE SANDRIDGE
2. BOTTLE PAN
3. NUNGA
4. SHINAMBA
5. SAVUTI MARSH
6. GAMTSHA - ZWEIZWEI COMPLEX
7. MATOBO PAN
8. NGWEZUMBA RIVER VALLEY
9. SAVUTI CHANNEL
- 10 12, 13 NGWEZUMBA DAM COMPLEX
- 11 KAZUMA PAN
- 14 GOHA HILLS
- 15 16, 17 CHOBE FLATS AND LINYANTI
- 18 MAPORORO PAN
- 19 EAST MANDABUZA
- 20 CHOBE RIVER FRONT.

CHOBE DISTRICT WILDLIFE DISTRIBUTION: WHITE RHINO.

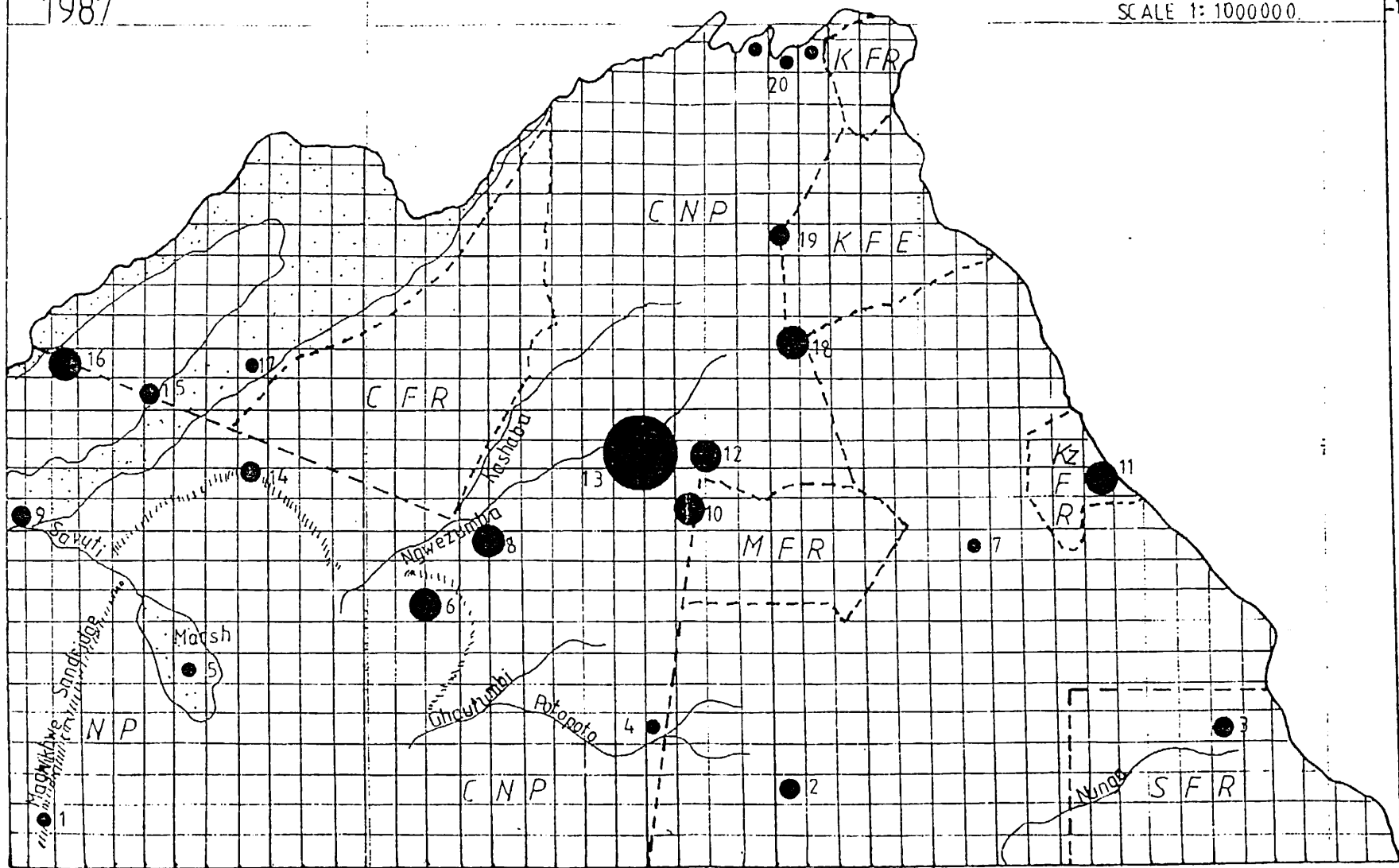
1987

BOTSWANA



SCALE 1: 1000000.

17°45' S



19°00' S

26° E

24° E

25° E

CFR- Chobe Forest Reserve, CNP- Chobe National Park, KFE- Kasane Forest Extension,
KFR- Kasane Forest Reserve, KzFR- Kazuma Forest Reserve, MFR- Maikaelelo Forest Reserve,
SFR- Sibuyu Forest Reserve.