

SADC REGIONAL PROGRAMME FOR RHINO CONSERVATION

TRAFFIC WILDLIFE STOCKPILE REGISTER DATABASE (WSRD)

VERSION 1.0

RHINO HORN STOCKPILES

INSTRUCTION MANUAL

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TRAFFIC East/Southern Africa

*Improving security and management
of rhino horn stocks in SADC rhino range states
Semester 7 task 3.1-1.2*



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The Programme is contracted to CESVI and implemented through a regional consortium which comprises:

- The Secretariat of the Southern Africa Development Community (SADC)
- IUCN-ROSA (The World Conservation Union - Regional Office for Southern Africa)
- The IUCN African Rhino Specialist Group
- WWF-SARPO - (World Wide Fund for Nature - Southern Africa Regional Programme Office)
- CESVI (Cooperazione e Sviluppo)

The **Programme goal** is to contribute to maintain viable and well distributed metapopulations of Southern African rhino taxa as flagship species for biodiversity conservation within the SADC region.

The **Programme objective** is to implement a pragmatic regional rhino strategy within the SADC region following the acquisition of sound information on, firstly, the constraints and opportunities for rhino conservation within each range state and secondly, the constraints and opportunities for rhino metapopulation management at the regional level.

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WILDLIFE STOCKPILE REGISTER DATABASE

Version 1.0

Rhino Horn Stockpiles



User's Manual

Simon Milledge

2003

TRAFFIC

—EAST/SOUTHERN AFRICA—

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2 INTRODUCTION

Effective management of wildlife product stockpiles is required to reduce the risk of leakage of contraband to illegal markets. Further, in the case of legally traded wildlife products, stockpile management help ensure that trade is properly organised and regulated.

The *Wildlife Stockpile Register Database (WSRD)* is a data storage, analysis and management tool for stockpiles of wildlife products. *WSRD Version 1.0* has been specially designed for rhino horn stockpiles. It is designed to facilitate the monitoring of the **accumulation, marking, registration, security and co-ordination** of rhino horn stockpiles from all sources, in accordance with *CITES Resolution Conference 9.14 (Rev.)*.

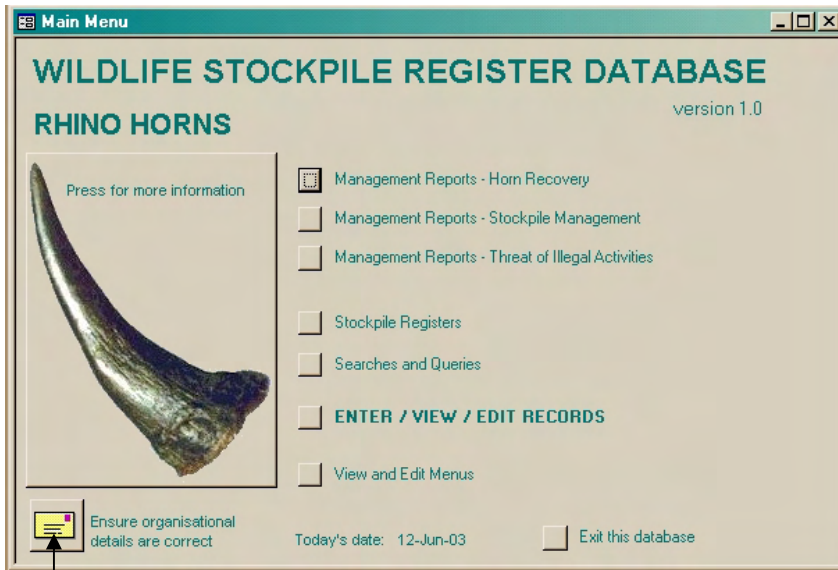
WSRD provides an extremely user-friendly interface to facilitate data entry, interactive queries, and the production of automated reports to help **provide answers to key management questions**. In addition to providing outputs to user-defined queries, it is also a tool to assist with law enforcement enquiries, and to ensure a secure and permanent record storage.

This manual is designed to assist all users operate WSRD. Users do not necessarily need prior knowledge of *Microsoft Access* software. The term “reserve” is used throughout the manual to represent any area containing a rhino population. **It is recommended that all new users read these instructions fully before using the database.**

This manual is also available on the WSRD CD-ROM. For additional information on the dynamics of rhino horn stockpile accumulation and the importance of proper stockpile management, interested parties are advised to read the *Rhino Horn Stockpile Management Discussion Paper*. For more detailed information on recommended horn stockpile management practices, refer to the report *Strengthening Rhino Horn Stockpile Management in the SADC Region*. Both reports are available from TRAFFIC or the SADC Regional Programme for Rhino Conservation.

3 INSTALLATION

1. Create a folder in <My Documents> called “WSRD”.
2. Insert CD and **copy both files** ‘Wildlife Stockpile Register Database’ and “WSRD Instruction Manual” from the CD into this folder.
3. Right-click the file ‘Wildlife Stockpile Register Database’ in the “WSRD” folder with the mouse, and select <Create Shortcut> from the menu.
4. Move the short cut to the desktop by keeping the left mouse button down over the file and dragging it to the desktop.
5. From now on, double-clicking this icon on the desktop can **open** the WSRD. You are first presented with the Main Menu.




6. Press this button and complete **your organisation's contact details**.

| | | | |
|-----------------|----------------------|---------------|----------------------|
| Company | <input type="text"/> | | |
| Address | <input type="text"/> | | |
| City | <input type="text"/> | Phone Number | <input type="text"/> |
| Region/Province | <input type="text"/> | Fax Number | <input type="text"/> |
| Country | <input type="text"/> | Email Address | <input type="text"/> |

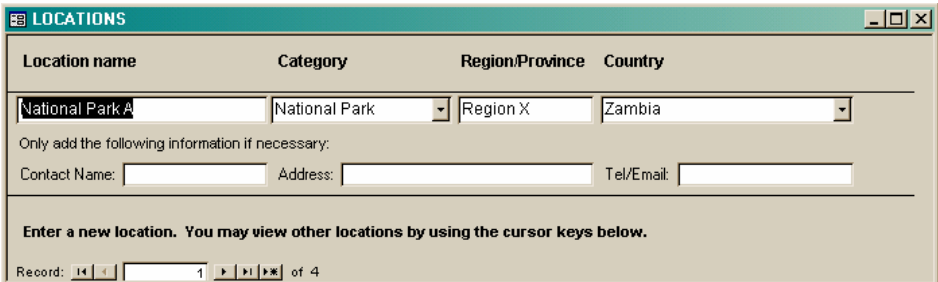
7. **Introductory information** may be viewed by pressing the large button marked with a rhino horn on the left of the opening screen.



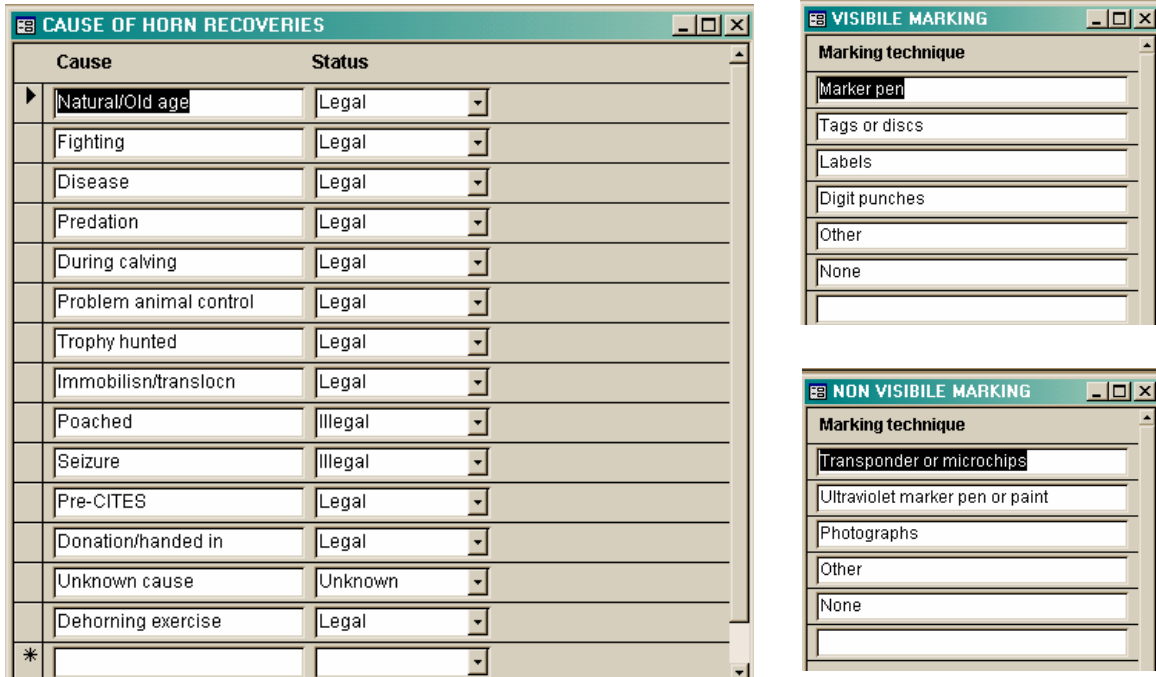
4 SETTING UP THE DATABASE

- FAMILIARISATION:** A total of ten records have been entered as **sample data** for new users. First of all, take time to **familiarise yourself** with the user-friendly menu interface to guide between different data entry forms, automated tables and reports. Simply use the mouse to press the different buttons and move between screens/menus. You will notice that you need not be a computer graduate to use this database!
- CUSTOMISE MENUS:** To ensure standardised data entry, the database uses various 'drop-down' menus. These need to be modified to suit your national situation. For example, your terminology for different categories of protected areas should be used.
- From the Main Menu, select the last button: **<View and Edit Menus>** and then select **<View and Edit Location Categories>** to view different kinds of locations from which rhino horn could originate. Several categories have already been entered including 'National Park' and 'Private sanctuary'. Modify these to suit the terminologies in your country. Delete or add further location categories required.
- It is advisable to include one location category labelled as **'Unknown'**.
- Press the 'X' button to close the  form.

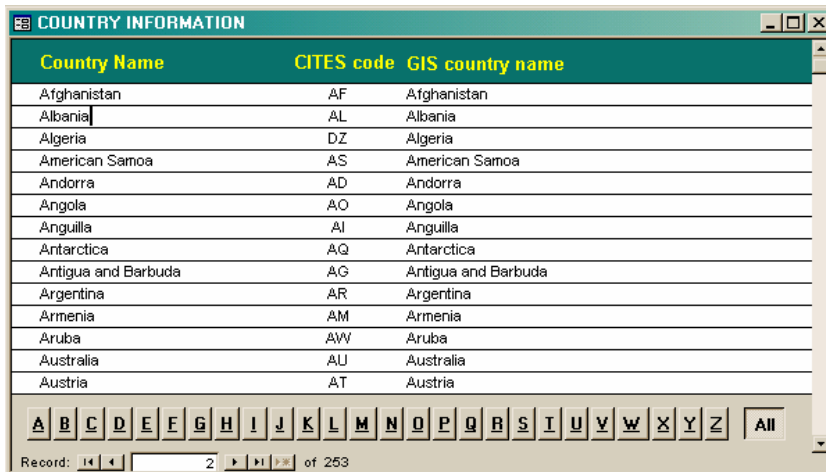


- The **<View and Edit Locations>** form is used for adding and editing the names of all locations from where horns are recovered. Start by entering the names of all protected areas where rhino populations occur. Additional locations (e.g. newly established rhino sanctuaries, location of a seizure) can be entered later on, as required.
- It is advisable to include one location entry labelled as **'Unknown'**. 
- For each location, also select the appropriate location category from the available list, as well as the region/province, country and other contact details (name, address, telephone and email).
- The locations of rhinos on government, community and privately owned land should **all** be included.

10. The same process should be repeated with the next three menus: <View and Edit Causes of Horn Recoveries>, <View and Edit Visible Marking Techniques> and <View and Edit Other Marking Techniques>.



11. At the bottom of the <Enter/View/Edit Records> menu, press the button labelled <View and Edit Country Information> to view country codes and full country names. The short-cut keys at the bottom of this menu facilitate quick viewing.

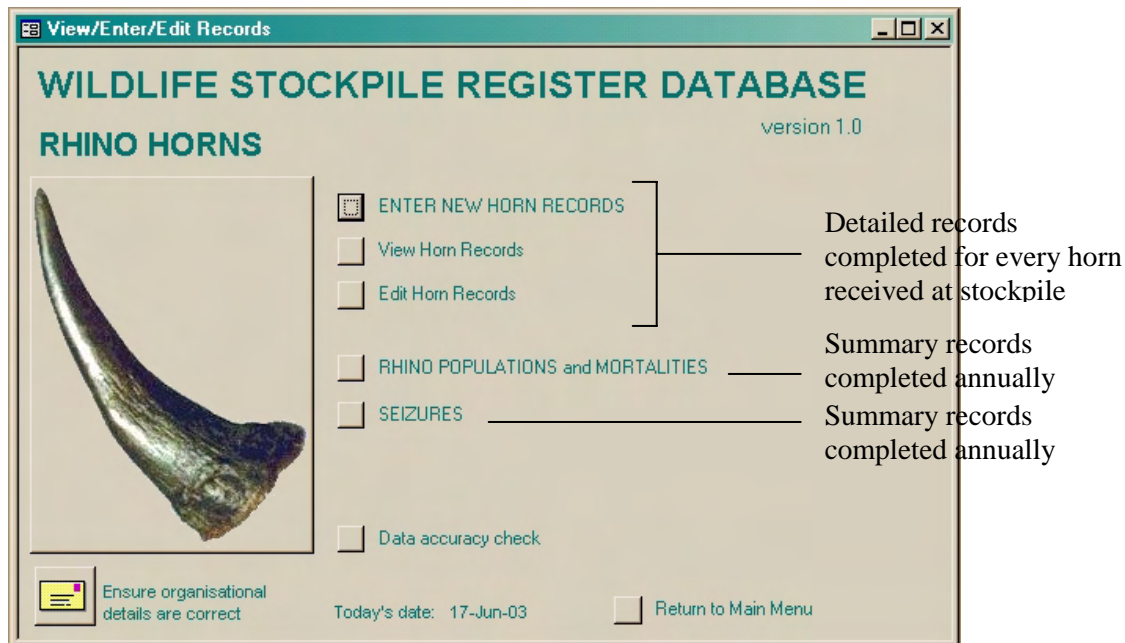


12. **IMPORTANT! READ BEFORE STARTING DATA ENTRY:** Once all locations, location categories and other menus have been updated, **data entry** may begin. It is first necessary to **delete the sample data**. However, **no data should be removed before the user has fully understood this entire manual**.

Instructions for deleting sample data are given at the end of this manual.

5 DATA ENTRY AND EDITING

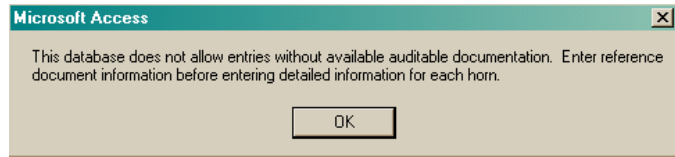
1. Select <ENTER/VIEW/EDIT RECORDS> from the main menu to access the three different forms of data entry:



2. Press the button <ENTER NEW HORN RECORDS> to open the following form:

3. The form is divided into two sections, the top (marked 'A' above) contains reference information for the **document** accompanying the horn(s), with the remainder (marked 'B' above) used for **details on each horn**. **One** document may contain details on **many** horns, for example to record several horns included on one issue voucher.

4. **DOCUMENT DETAILS: All document details must be completed:** document number, date received and origin of document. Otherwise, a warning message will be displayed. The purpose of this mechanism is to ensure reference documentation is available for audit purposes.



Enter the following information:

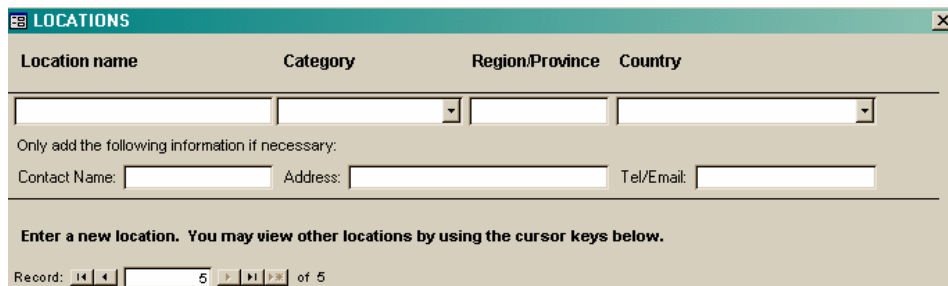
- a. **Document Number:** For example, the I/V number or register number accompanying the horns;
 - b. **Date Received:** The date that the document and accompanying horns was received at the stockpile; and
 - c. **Origin:** Select the most appropriate choice from the drop-down menu. For example, if the document (and horns) has come from a National Park, select 'Field station (reserve/park, etc.)'.
5. **HORN DETAILS: For each horn,** the form is divided into three sections (see diagram on previous page):
- a. **Reference Information;**
 - b. **Origin, Cause and Date of Horn Recovery;** and
 - c. **Horn Identification.**

All **sunken boxes** in this section *must* be completed. This includes the following boxes: Station Serial No., National Serial No., Origin, Cause, Horn Description, Visible Marking Method and Weight. If they are not completed, a warning message will appear.

- a. **REFERENCE INFORMATION:** The unique **Station Serial Number** should be inserted. Duplicates are not allowed. Note that this number is also automatically entered as the **National Serial Number** underneath. However, this can be changed, for example, if and when a National Serial Number is allocated.
- b. **ORIGIN, CAUSE AND DATE OF HORN RECOVERY:** Select the **Origin Location** from the list of options included in the drop-down list. In most cases, this will be the name of the reserve that a rhino has died.

In the case of **seizures**, the name of the **origin of the horn** should be selected, *not* the location of the seizure itself. If the origin is not known (as is often the case), then select 'Unknown'.

If the origin location is **not included** in the drop-down list, double-click the <Origin> field, enter a new location and close the form.



This new location will now appear in the drop-down list.

Select the **Cause** of horn recovery from the drop-down list. Note that helpful hints are available by placing the mouse over different fields.

The screenshot shows a software interface for recording horn data. At the top, there are fields for Document No. (763482), Date received (10/06/2003), and Origin (Field station (reserve/park, etc.)). Below this, the form is split into two main columns. The left column contains 'REFERENCE INFORMATION' with fields for Station Serial No. (3473242) and National Serial No. (3473242). The right column is titled 'ORIGIN, CAUSE AND DATE OF HORN RECOVERY' and includes Origin (National Park A), Cause (Predation), and Date (10/01/2003). Below these is the 'HORN IDENTIFICATION' section with four tabs: General, Measurements, Condition, and Removals. The 'General' tab is active, showing fields for Horn description (Whole horn), Horn position (Front, Rear, Unknown), Species (Black), Rhino identity, and Other remarks. A dropdown menu for 'Cause' is open, listing various reasons like 'Natural/Old age', 'Fighting', 'Disease', 'Predation', 'During calving', etc. A tooltip 'Insert the cause of the horn recovery or rhino mortality?' is displayed over the dropdown. At the bottom, there are record navigation controls showing 'Record: 1 of 2' and 'Record: 1 of 1 (Filtered)'.

Lastly, enter the **Date** that the horn was **recovered**. This date is always *before* the date that the horn was received at the stockpile.

- c. **HORN IDENTIFICATION:** This section of the horn data entry form is further divided into four parts (or tabs): <General>, <Measurements>, <Condition> and <Removals>. Each tab is visible as a labelled box, and is activated using the mouse.
 - i. **GENERAL INFORMATION:** This tab contains several fields, two of which *must* be completed: <Horn description> and <Visible marking methods>.
 1. **Horn description:** This field is preset to show 'Whole horn' since this is the most common entry. Otherwise, select the most appropriate choice from the drop-down list.
 2. **Horn position:** Tick the appropriate box for 'Front', 'Back' or 'Unknown'.
 3. **Species:** Select between 'Black', 'White' and 'Unknown'.
 4. **Rhino identity:** The drop-down list includes the identities of individually known rhinos. To avoid duplication of data recording efforts, it is advised that this field is **linked** to any other database that is maintained for recording information on individual rhinos. Contact TRAFFIC or a qualified computer software technician for more information on linking two databases. If rhino identity is not known, it should be left blank.
 5. **Other remarks:** Space for additional information.
 6. **Visible marking techniques:** Select the visible marking technique from the drop-down list, for example, tags, marker pen and labels. If more than one visible marking technique is used, select the most permanent.
 7. **Marked numbers and letters:** Record here any letters or numbers written or marked on the horn. This is often the same as the station serial number.
 8. **Additional markings:** Select from the drop-down list if any other marking techniques are used.

9. **Transponder number:** Record the unique transponder number here. Duplicates are not allowed.
10. **Date inserted:** Record the date that the transponder was implanted.
11. **Photograph reference:** If photographs are taken, record the reference.
12. **Storage location:** This should record the current storage location, for example the box number, shelf number, bank vault number.

Document No. **763482** Date received 10/06/2003 Origin Field station (reserve/park, etc.)

| REFERENCE INFORMATION | ORIGIN, CAUSE AND DATE OF HORN RECOVERY |
|-----------------------------|---|
| Station Serial No. 3473242 | Origin National Park A |
| National Serial No. 3473242 | Cause Predation Date: 10/01/2003 |

HORN IDENTIFICATION

General Measurements Condition Removals

Horn description Whole horn Visible marking method Tags or discs
 Horn position Front Rear Unknown
 Marked numbers and letters Marker pen
 Additional marking Tags or discs
 Transponder number Labels
 Date inserted Digit punches
 Photograph reference Other
 Storage location None

Species Black Rhino identity Other remarks

Record: 1 of 2

Record: 1 of 1 (Filtered)

ii. **HORN MEASUREMENTS:** The weight measurement *must* be completed.

1. **Weight (kg):** Include the horn weight to the nearest 0.1 kg (100 g). In the case of trophies, record the weight of the entire mounted specimen.
2. **Lengths (cm):** If known, include the three horn length measurements shown on the horn diagram to the nearest 0.1 cm (1 mm).

Document No. **763482** Date received 10/06/2003 Origin Field station (reserve/park, etc.) **New Document**

| REFERENCE INFORMATION | ORIGIN, CAUSE AND DATE OF HORN RECOVERY |
|-----------------------------|---|
| Station Serial No. 3473242 | Origin National Park A |
| National Serial No. 3473242 | Cause Predation Date: 10/01/2003 |

HORN IDENTIFICATION

General Measurements Condition Removals

Weight 3.50 Kg

Inside curve: 11.00 cm
 Outside curve 12.00 cm
 Base girth cm

NEW HORN RECORD

Duplicate Record

Useful if complete pair of horns is collected

Note: All sunken boxes must be completed. Move the cursor over a box for useful hints.

Record: 1 of 2

Record: 1 of 1 (Filtered)

- iii. **HORN CONDITION:** Select one of the four categories of horn condition: 'Normal', 'Weathered', 'Insect damaged' and 'Unknown'.

Document No. **763482** Date received 10/06/2003 Origin Field station (reserve/park, etc.)

REFERENCE INFORMATION
 Station Serial No. 3473242
 National Serial No. 3473242

ORIGIN, CAUSE AND DATE OF HORN RECOVERY
 Origin National Park A
 Cause Predation Date: 10/01/2003

HORN IDENTIFICATION
 General Measurements Condition Removals

Normal Weathered Insect damage Unknown

NEW HORN RECORD

Duplicate Record
 Useful if complete pair of horns is collected

Note: All sunken boxes must be completed. Move the cursor over a box for useful hints.

Record: 1 of 2
 Record: 1 of 1 (Filtered)

- iv. **HORN REMOVALS:** *Only* complete this section if the horn is removed.

- Description of removal:** Select the appropriate description from the drop-down list. In many cases, the description will read 'Moved to another strong room' or 'Destroyed'.
- Date of removal / Destination (if any) / Document reference:** The destination is particularly important in the case of horns being moved to another strong room, especially during audit processes.

Description of removal
 (required field for all removals)

Moved to another strong room
 Destroyed
 Donated
 Stolen
 Sold
 Other
 Unknown

Document reference

Document No. **763482** Date received 10/06/2003 Origin Field station (reserve/park, etc.)

REFERENCE INFORMATION
 Station Serial No. 3473242
 National Serial No. 3473242

ORIGIN, CAUSE AND DATE OF HORN RECOVERY
 Origin National Park A
 Cause Predation Date: 10/01/2003

HORN IDENTIFICATION
 General Measurements Condition Removals

Description of removal [drop-down]
 (required field for all removals)

Date of removal [date field]
 [] days after recovery

Destination (if any) [text field]

Document reference [text field]

Record: 1 of 2
 Record: 1 of 1 (Filtered)

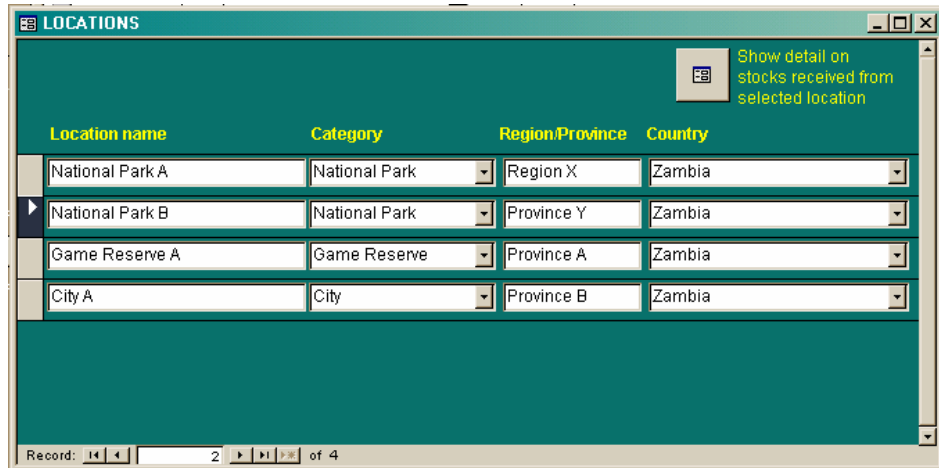
See page 26 on how to view a summary of horn removals.

6. **TWO HORNS FROM SAME RHINO:** In many circumstances, both horns are collected from a rhino carcass. In order to save time during data entry, press the button marked <**Duplicate Record**> on the right-hand side. A message will appear reminding you to enter certain fields again which will be different for the second horn: horn position, measurements, markings and transponder number.

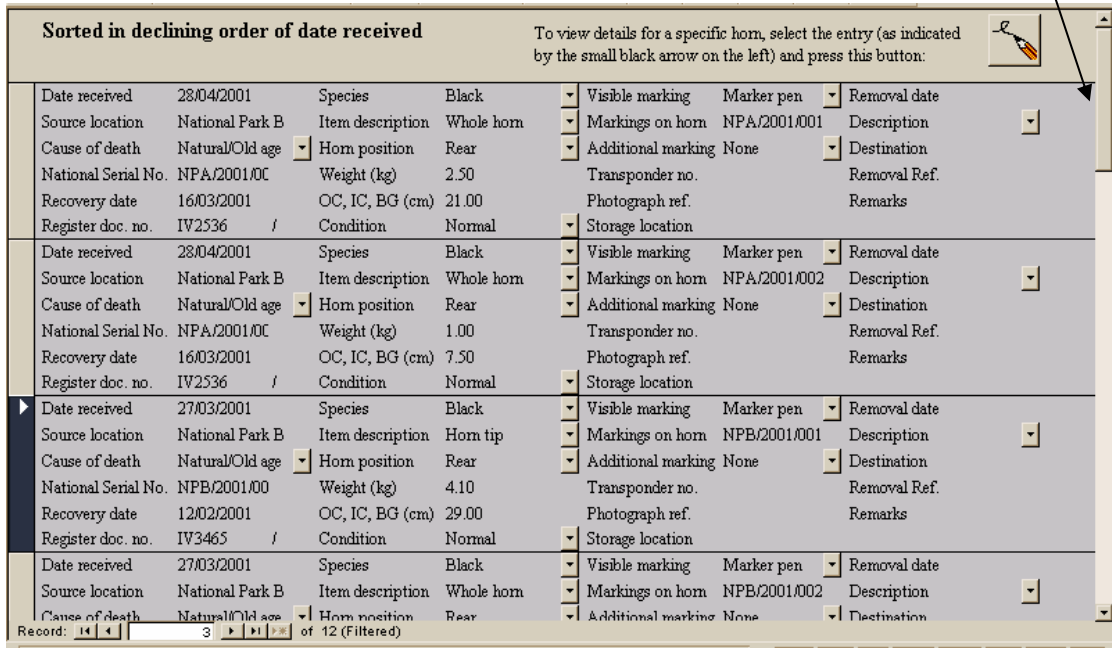
7. **NEW HORN RECORD:** To start a new entry (i.e. horn(s) from a different rhino but still on same document, press the button labelled 'New Horn Record' (with picture of receiving officer registering horn at desk). Proceed with data entry as detailed above, paragraph 5, page 7. Note that there is no need to re-enter document information since the horn has been received together with the same document as the previous horn.
8. **NEW DOCUMENT:** If some horns are accompanied by a different document, then press the button at top right-hand corner marked <**New Document**>. Proceed with data entry as detailed above, starting from paragraph 4, page 7.
9. With regard to horns received in the stockpile, two other options are available from the <View/Enter/Edit Records> menu: <**View Horn Records**> and <**Edit Horn Records**>.

10. **VIEWING HORN RECORDS:** Press the button <View Horn Records> to open the following form.

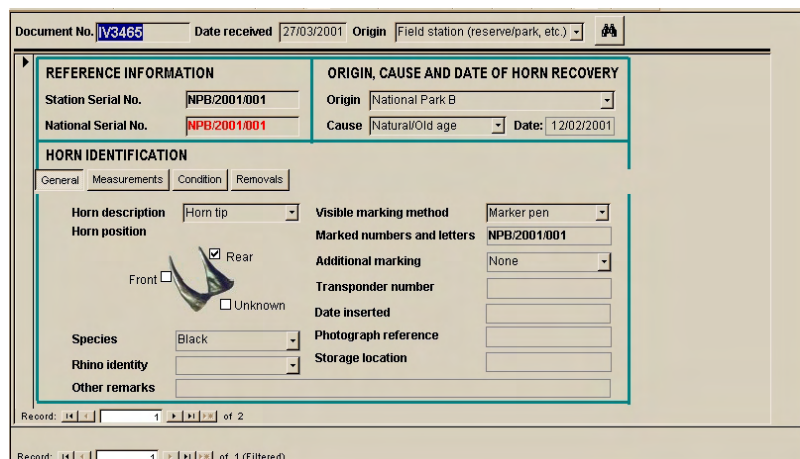
First, to view all horns received from a **specific location**, select the location by pressing the grey box with arrow on the left-hand side, and then press the button in the top right.



In this example, all horn entries originated from 'National Park B'. Scroll up and down the different horn entries using the control boxes on the right-hand side of the screen.




To view details for a **specific horn**, select the entry (as indicated by the small arrow on the left) and press the button in the top-right corner. In this example, the original data entry form for horn 'NPB/2001/001' is shown. Note that there is no way of editing records in this view.



11. **EDITING HORN RECORDS:** Press the button <Edit Horn Records> from the <View/Enter/Edit Records> menu to open the following form.

RECEIVED DOCUMENTS
sorted in declining order of document number


To edit details for a specific horn, select the entry (as indicated by the small black arrow on the left) and press this button: 

| Document number | Date received | Document Origin | Date entered into database | Total number of entries |
|-----------------|---------------|------------------------------------|----------------------------|-------------------------|
| 763482 | 10/06/2003 | Field station (reserve/park, etc.) | 06/10/2003 | 2 |
| IV1245 | 01/04/2000 | Field station (reserve/park, etc.) | 29/05/2003 | 8 |
| IV1278 | 25/11/2000 | Field station (reserve/park, etc.) | 29/05/2003 | 3 |
| IV1300 | 04/12/2000 | Law enforcement agency | 29/05/2003 | 1 |
| IV1785 | 28/12/2001 | Field station (reserve/park, etc.) | 29/05/2003 | 6 |
| ▶ IV2536 | 28/04/2001 | Field station (reserve/park, etc.) | 29/05/2003 | 2 |
| IV2678 | 26/11/2002 | Field station (reserve/park, etc.) | 29/05/2003 | 1 |
| IV2785 | 20/12/2002 | Field station (reserve/park, etc.) | 29/05/2003 | 6 |
| IV3465 | 27/03/2001 | Field station (reserve/park, etc.) | 29/05/2003 | 2 |
| IV5242 | 02/06/2000 | Field station (reserve/park, etc.) | 29/05/2003 | 7 |
| IV7236 | 01/09/2000 | Field station (reserve/park, etc.) | 29/05/2003 | 2 |

Record: 14 of 11

To view details for a **specific document**, select the document (as indicated by the small arrow on the left) and press the button in the top-right corner. In this example, the original data entry form for document 'IV2536' is shown.

Note how the total number of entries (two) shown in the document selection form matches the number of entries in the original form.

Document No. **IV2536** Date received 28/04/2001 Origin Field station (reserve/park, etc.)  **New Document**

REFERENCE INFORMATION

Station Serial No.

National Serial No.

HORN IDENTIFICATION

General Measurements Condition Removals

Horn description

Horn position Front Rear Unknown

Species

Rhino identity

Other remarks

ORIGIN, CAUSE AND DATE OF HORN RECOVERY

Origin

Cause Date:

Visible marking method

Marked numbers and letters

Additional marking

Transponder number


Date inserted

Photograph reference

Storage location

Add Record

NEW HORN RECORD



Duplicate Record

Useful if complete pair of horns is collected

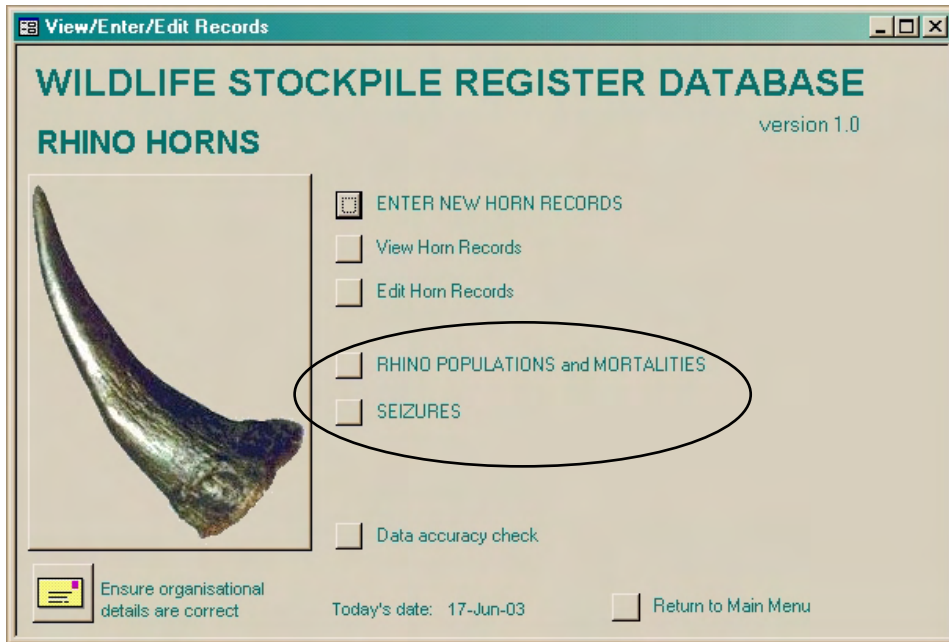
Note: All sunken boxes must be completed. Move the cursor over a box for useful hints.

Record: 1 of 2

Record: 14 of 1 (Filtered)

Document and individual horn details may now be edited.

12. As mentioned at the beginning of this section (page 6), two additional forms need to be completed **annually** to allow some analyses to be made:
 - a. Rhino Population and Mortality *Summary* Records; and
 - b. Rhino Horn Seizure *Summary* Records.



13. **RHINO POPULATIONS AND MORTALITIES:** Press the button <**RHINO POPULATIONS and MORTALITIES**> from the <View/Enter/Edit Records> menu to open the following form.

| Location | Year | Rhino Population Estimates | | | Number of rhino carcasses | | |
|-----------------|------|----------------------------|-------|-------|---------------------------|-------|-------|
| | | Black | White | Total | Poached | Other | Total |
| National Park A | 2002 | 25 | 37 | 62 | 3 | 2 | 5 |
| National Park A | 2001 | 22 | 35 | 57 | 3 | 1 | 4 |
| National Park A | 2000 | 20 | 30 | 50 | 2 | 2 | 4 |
| National Park B | 2002 | 95 | 0 | 95 | 4 | 2 | 6 |
| National Park B | 2001 | 97 | 0 | 97 | 3 | 4 | 7 |
| National Park B | 2000 | 88 | 0 | 88 | 4 | 3 | 7 |
| * | | | | | | | |

Enter the **population estimates** and **number of carcasses** found (both from poached ('illegal') and other ('legal') causes in the spaces provided. A new row should be completed for **each reserve** and **each year**.

14. **RHINO HORN SEIZURES:** Press the button <**SEIZURES**> from the <View/Enter/Edit Records> menu to open the following form.

| Country | Year | Rhino Horn Seizures | |
|---------|------|---------------------|--------|
| | | Number | Weight |
| Zambia | 2000 | 5 | 8.00 |
| Zambia | 2001 | 3 | 7.20 |
| Zambia | 2002 | 7 | 18.50 |
| * | | | |

Record: 14 of 3

Enter the **total number** (and **weight** if possible) of horns seized in the spaces provided. A new row should be completed for **each year**.

15. **DATA CHECK:** Pressing the last button on the <View/Enter/Edit Records> menu marked <**Data accuracy check**> produces the following table. This allows a quick crosscheck to be made to ensure that the causes of horn recovery generally match the origin of the documents. For example, the table shows how, as expected, the one seized horn originated from a law enforcement agency. On the other hand, one would not normally expect to find a horn recovered from a diseased rhino being handed in from a law enforcement agency (e.g. police).

| | Location Category | Cause of Recovery | Total | Field station | Law enforcement agency |
|---|-------------------|--------------------|-------|---------------|------------------------|
| ▶ | City | Seizure | 1 | | 1 |
| | National Park | Dehorning exercise | 1 | 1 | |
| | National Park | Disease | 2 | | 2 |
| | National Park | Fighting | 8 | | 8 |
| | National Park | Natural/Old age | 22 | 22 | |
| | National Park | Poached | 8 | | 8 |
| | National Park | Predation | 2 | | 2 |
| | National Park | Unknown cause | 3 | | 3 |

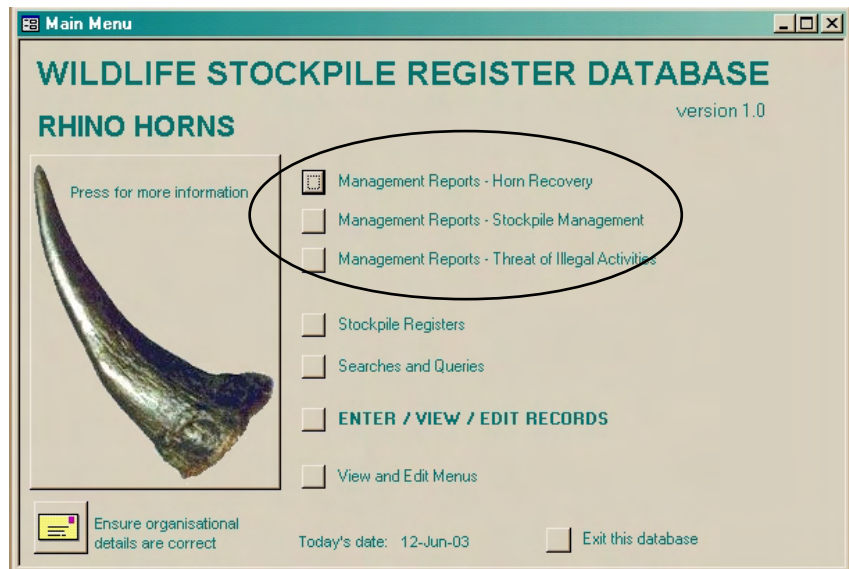
If a mistake has been made, corrections can be made by selecting <Edit Horn Records> (see page 13).

6 AUTOMATED REPORTS

1. A total of 12 automatic reports can be produced from WSRD, each a response to different management questions. It is important to note that whilst some of these reports may answer such management questions outright, others are designed to provide various indicators to catalyse management thinking and planning.

2. Three categories of automated report are available from the main menu, each concerning different aspects of management:

- a. **Horn Recovery;**
- b. **Stockpile Management;**
and
- c. **Threat of Illegal Activities.**



3. **MANAGEMENT REPORTS - HORN RECOVERY:** Six different reports are available, which aim to help answer the following management questions:

- a. **Where are horns coming from and what are the general trends in accumulation?**

Justification: Accumulation dynamics *need to be tracked* in comparison with changes in rhino populations and other trends.

- b. **Are all the horns from discovered natural mortalities being stockpiled?**

Justification: It is important to double-check that all horns *are actually stockpiled* after the discovery of a carcass.

- c. **Are field patrols collecting acceptable levels of horn?**

Justification: In any given population, a certain number of horns should be collected from natural mortalities, depending on the size of population and patrol coverage. It is important to check that *recovery rates match expectations*.

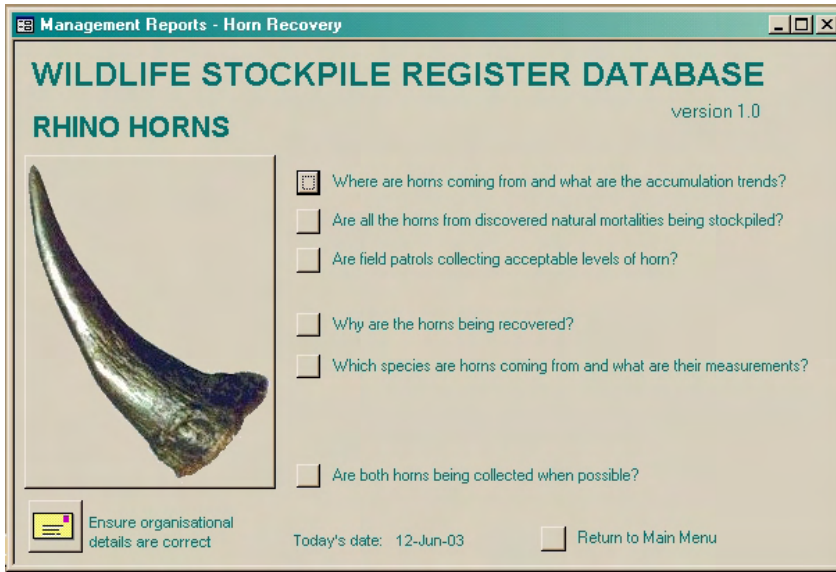
- d. **Why are horns being recovered?**

Justification: The more horns collected whose cause of recovery is established (i.e. natural mortality, predation, poaching, etc. as oppose to 'unknown'), the *better the understanding* of the relative impact of different mortality factors, and levels of illegal activity.

- e. **Which species are the horns coming from and what are their measurements?**

- f. **Are both horns being collected when possible?**

Justification: It is important to ensure that *both horns* are indeed collected and registered where relevant.

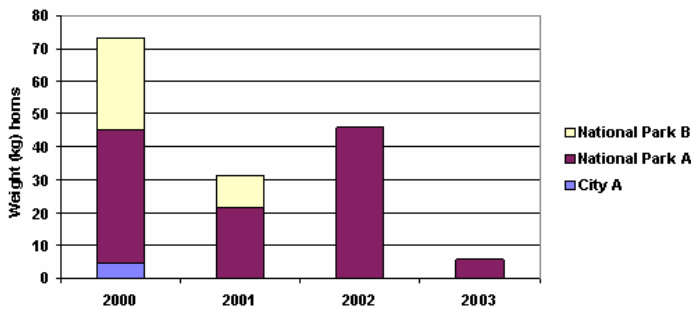


The content of the six reports are outlined below:

a. Where are horns coming from and what are the general trends in accumulation?

Justification: Accumulation dynamics need to be tracked in comparison with changes in rhino populations and other trends.

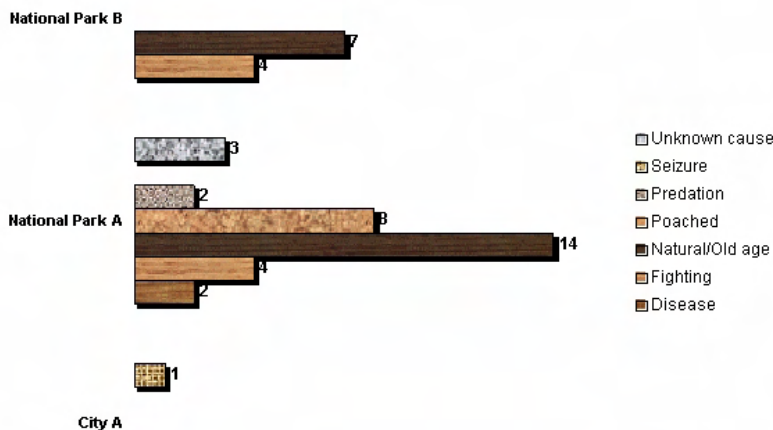
Weight (kg) horns received per year from different locations



Interpretation:

The two graphs illustrate the breakdown of the existing stockpile by source location and cause of recovery, allowing rapid assessment of not only horn accumulation patterns but also the composition of the existing stockpile.

Number of horns in stockpile by source location and cause of recovery



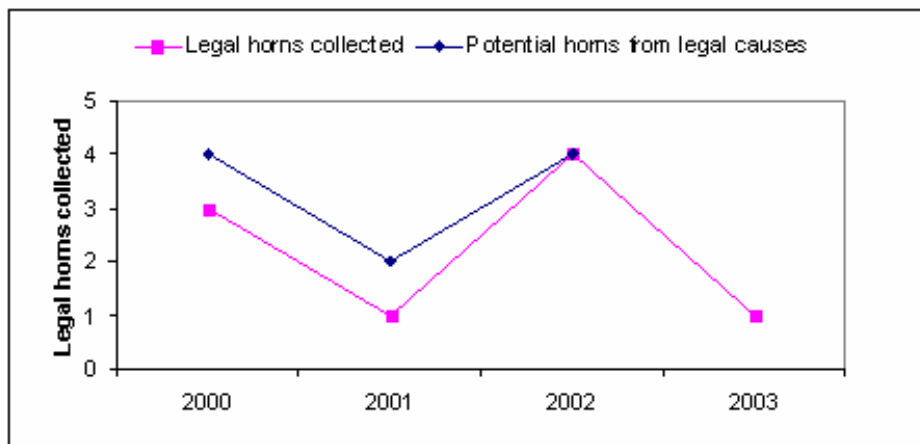
Note:

It may be necessary to close and reopen these reports if they do not read properly initially.

b. Are all the horns from discovered natural mortalities being stockpiled?

Justification: It is important to double-check that all horns *are actually stockpiled* after the discovery of a carcass.

National Park A



| Summary of data: | Year | No. 'legal' horns | Potential no. horns to recover from natural mortalities |
|------------------|--------------|-------------------|---|
| | 2003 | 1 | |
| | 2002 | 4 | 4 |
| | 2001 | 1 | 2 |
| | 2000 | 3 | 4 |
| | Total | 9 | 10 |

Interpretation:

This graph compares the number of horns that should have been recovered from 'legal' causes (i.e. twice the number of recorded mortalities other than poached carcasses – since each rhino possesses two horns) with the actual number of horns received from 'legal' causes. Ideally, the two lines should match although there may be reasons for a mismatch. For example, when a young rhino is found dead and only the front horn is collected. Separate graphs allow comparison between reserves.

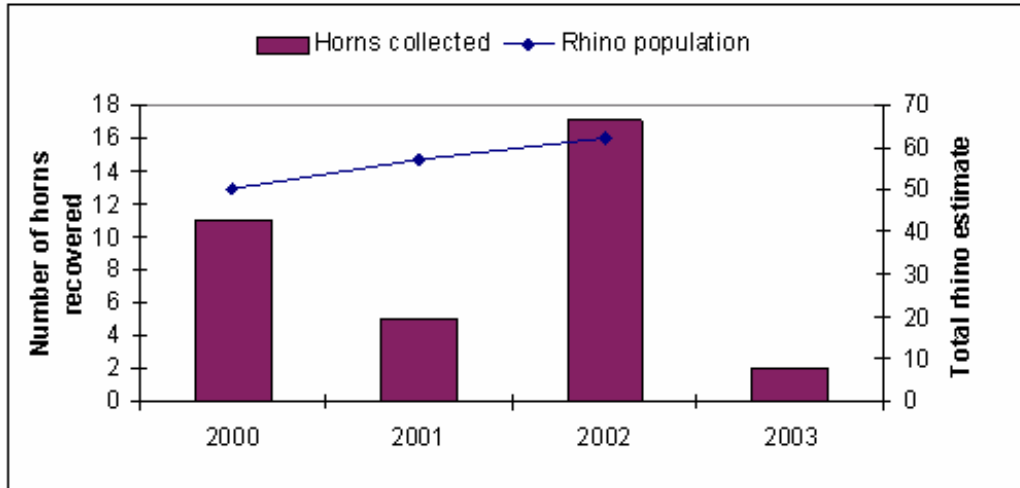
Note:

This report requires completion of the <Rhino Populations and Mortalities> form (see page 14).

c. Are field patrols collecting acceptable levels of horn?

Justification: In any given population, a certain number of horns should be collected from natural mortalities, depending on the size of population and patrol coverage. It is important to check that *recovery rates match expectations*.

National Park A



| Summary of data: | YEAR | NO. HORNS RECOVERED | TOTAL RHINO POPULATION |
|------------------|---------------|---------------------|------------------------|
| | 2003 | 2 | 62 |
| | 2002 | 17 | 62 |
| | 2001 | 5 | 57 |
| | 2000 | 11 | 50 |
| | Total: | 35 | |

Interpretation:

This graph compares the number of horns collected (line on graph) with the size of the rhino population (bars on graph). The graph provides a *cursory look* at horn accumulation rates compared to changes in rhino populations. However, it is recognised that looking at annual rhino population changes is not the most accurate method for rhino populations – moving two or three-year averages is preferred. Separate graphs allow comparison between reserves.

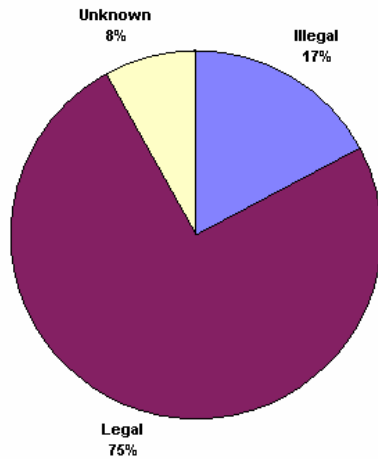
Note:

This report requires completion of the <Rhino Populations and Mortalities> form (see page 14).

d. Why are horns being recovered?

Justification: The more horns collected whose cause of recovery is established (i.e. natural mortality, predation, poaching, etc. as oppose to 'unknown'), the *better the understanding* of the relative impact of different mortality factors, and levels of illegal activity.

Proportion of horn stockpile from 'legal' and 'illegal' origins and level of uncertainty (unknown origin).

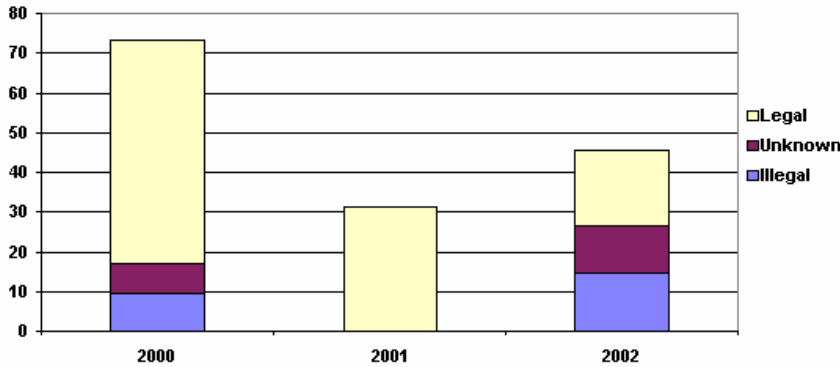


Interpretation:

This report presents three graphs. The first is a pie chart presenting the status of the current stockpile composition. The proportion of 'Unknown' horns is an indicator of the levels of understanding of mortality factors – the higher the percentage, the lower the understanding.

Status of received horns by year.

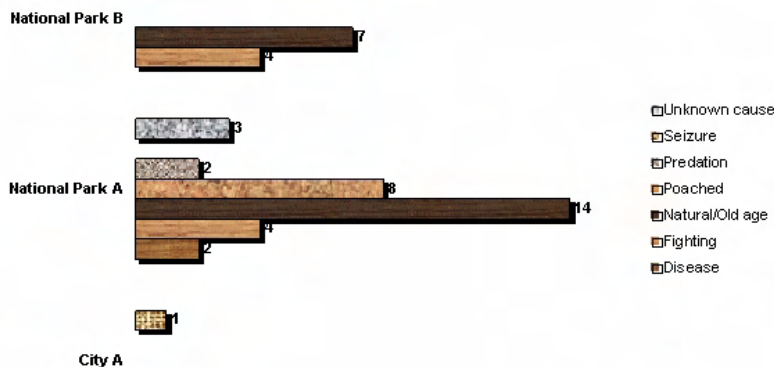
Bar chart showing status of received rhino horns each year



The second graph, a bar chart, illustrates the changing composition of horn status over time.

The third graph is a repeat of one of the bar charts shown in report (a) above, illustrating the cause of horn recovery for each reserve.

Number of horns in stockpile by source location and cause of recovery

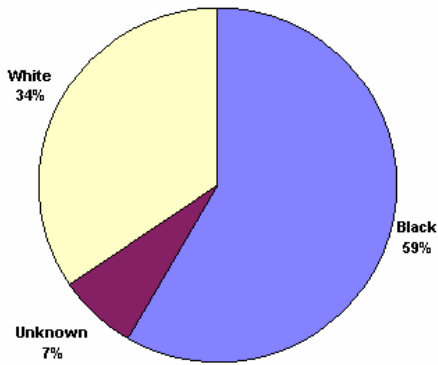


The *Stockpile Register sorted by Cause of Recovery* is another useful and related report (see page 25).

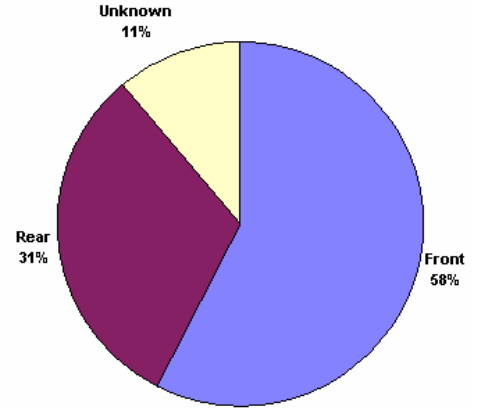
e. Which species are the horns coming from and what are their measurements?

The first two pie charts of this report illustrate the proportion of horns in the existing stockpile by (a) species, and (b) horn position.

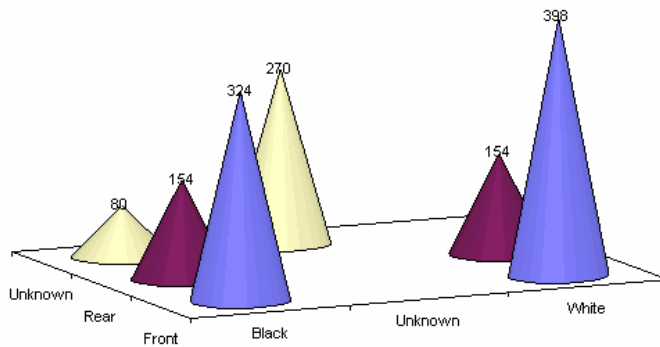
Proportion of horn stockpile from different species.



Proportion of different horns in stockpile.



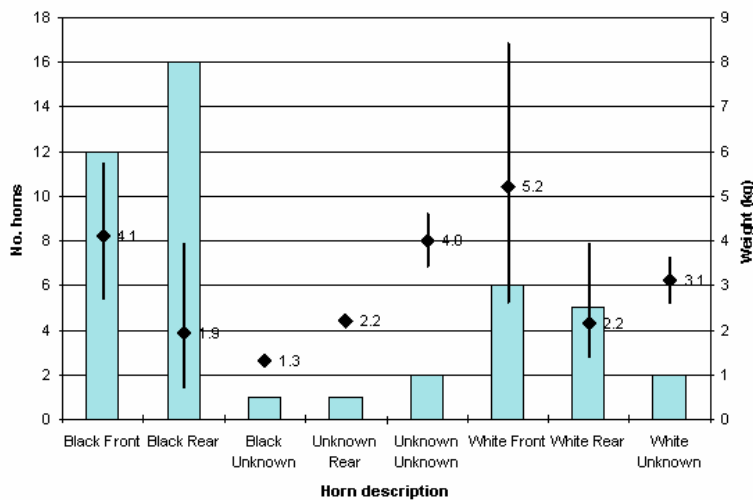
Average outside curve length of different horns (mm)



The second two graphs illustrate (a) the average outside curve length measurements of different types of horn; and (b) the minimum, maximum and average weight measurements for different types of horn. Note that the bars in the last graph represent the number of horns (sample size).

Minimum, maximum and average weights of different horns (kg)

Note: bars represent the number of horns (sample size)



f. Are both horns being collected when possible?

Justification: It is important to ensure that *both horns* are indeed collected and registered where relevant.

Interpretation: The last of the horn recovery management reports is a summary printout of all rhino horns in the stockpile. The horns are ordered by (1) location of recovery, (2) recovery date, and (3) cause of recovery, to assist with analysis. When reading this report, particular attention should be paid to the columns titled 'Horn type and position' since in most cases, 'Front' and 'Rear' horns should follow one another for any given date, source location and cause of recovery.

WILDLIFE STOCKPILE REGISTER DATABASE

Report of entire existing rhino horn stockpile, sorted by location and date of recovery

| Location Name | Recovery Date | Cause of horn recovery | Species | Horn type and position | | Weight (kg) | Outside curve (cm) | Date received | Document number | National Serial No. | Storage location |
|-----------------|-----------------|------------------------|------------|------------------------|---------|-------------|--------------------|---------------|-----------------|---------------------|------------------|
| City A | 01/12/2000 | Seizure | White | Whole horn | Front | 4.8 | 32 | 04/12/2000 | IV1300 | ZM2000/S045 | |
| National Park A | 01/01/2000 | Natural/old age | Black | Whole horn | Rear | 3 | 21 | 01/04/2000 | IV1245 | NPA2000/001 | |
| | | Natural/old age | Black | Whole horn | Unknown | 1.3 | 8 | 01/04/2000 | IV1245 | NPA2000/002 | |
| | 25/02/2000 | Natural/old age | Black | Whole horn | Front | 5.7 | 46 | 01/04/2000 | IV1245 | NPA2000/003 | |
| | | Natural/old age | Black | Whole horn | Rear | 3.9 | | 01/04/2000 | IV1245 | NPA2000/004 | |
| | 28/02/2000 | Poached | White | Whole horn | Unknown | 2.6 | | 01/04/2000 | IV1245 | NPA2000/007 | |
| | | Poached | White | Whole horn | Rear | 2.05 | 17 | 01/04/2000 | IV1245 | NPA2000/008 | |
| | 03/03/2000 | Fighting | White | Whole horn | Front | 8.4 | 67 | 01/04/2000 | IV1245 | NPA2000/005 | |
| | | Fighting | White | Whole horn | Unknown | 3.6 | | 01/04/2000 | IV1245 | NPA2000/006 | |
| | 25/06/2000 | Unknown cause | Unknown | Whole horn | Unknown | 3.4 | 16 | 25/11/2000 | IV1278 | NPA2000/009 | |
| | 25/10/2000 | Natural/old age | Black | Whole horn | Front | 4.7 | 39 | 25/11/2000 | IV1278 | NPA2000/010 | |
| | | Natural/old age | Black | Whole horn | Rear | 1.5 | 8 | 25/11/2000 | IV1278 | NPA2000/011 | |
| | 04/01/2001 | Natural/old age | White | Whole horn | Front | 2.6 | 17 | 28/12/2001 | IV1785 | NPA2001/001 | |
| | 18/06/2001 | Dehorning exercise | Black | Horn tip | Front | 0.5 | | 28/12/2001 | IV1785 | NPA2001/005 | |
| | 25/08/2001 | Natural/old age | Unknown | Whole horn | Unknown | 4.6 | 38 | 28/12/2001 | IV1785 | NPA2001/006 | |
| | Natural/old age | Unknown | Whole horn | Rear | 2.2 | | 28/12/2001 | IV1785 | NPA2001/007 | | |

4. MANAGEMENT REPORTS – STOCKPILE MANAGEMENT: Three different reports are available, which aim to help answer the following management questions:

a. Are all the horns collected being stockpiled in a timely manner?

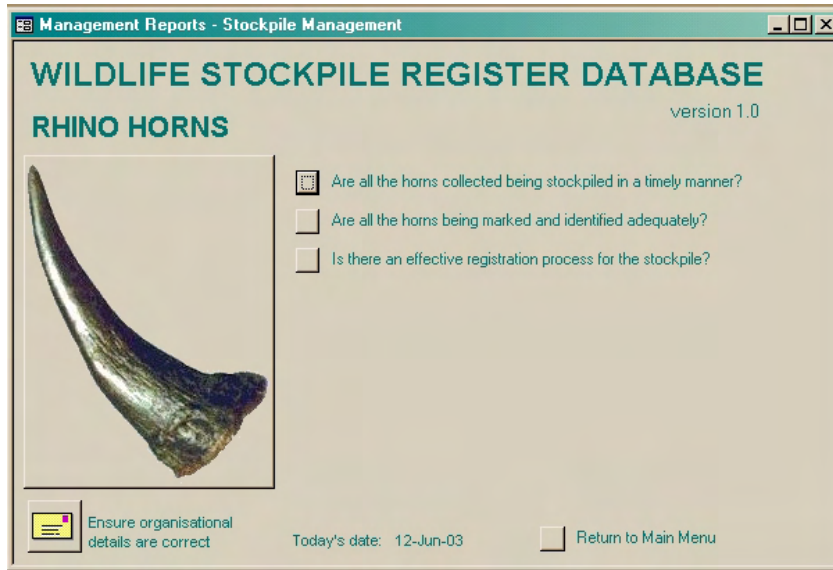
Justification: The sooner horns are moved to a central stockpile, the *less likelihood* they may be lost or stolen, or important accompanying information is mislaid.

b. Are all the horns being marked and identified adequately?

Justification: Marking helps in identification and assisting with audit processes. Some marking techniques are better than others.

c. Is there an effective registration process for the stockpile?

Justification: Without proper registration protocols, the possibility for theft and illicit trade remains. Audits rely on adequate paper trails and registration processes.



The content of the three reports are outlined below:

a. Are all the horns collected being stockpiled in a timely manner?

Justification: The sooner horns are moved to a central stockpile, the *less likelihood* they may be lost or stolen, or important accompanying information is mislaid.

WILDLIFE STOCKPILE REGISTER DATABASE

Monitoring the Efficiency of Registration and Centralisation of Rhino Horns
Report of time taken between recovering horns and final registration

| Location name | Year | Average number of days between recovery and receipt |
|------------------------|------------------|--|
| National Park A | | |
| | 2003 | 151 |
| | 2002 | 181 |
| | 2001 | 170 |
| | 2000 | 54 |
| | Overall average: | 139 |
| National Park B | | |
| | 2001 | 43 |
| | 2000 | 40 |
| | Overall average: | 41 |

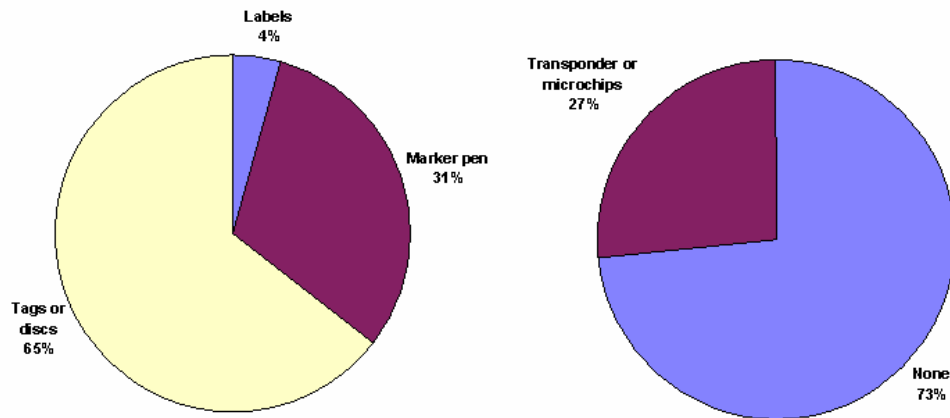
Interpretation:

This report facilitates comparison – between years *and* between reserves - of the time between horn recovery and horn registration. For example, in the report above, the ‘centralisation rate’ was similar between National Park A and B in 2000, but for some reason in 2003 it is taking three times as long for horns to reach the central store than in 2000.

b. Are all the horns being marked and identified adequately?

Justification: Marking helps in identification and assisting with audit processes. Some marking techniques are better than others.

Proportion of horn stockpile with (a) visible and (b) invisible markings.



Interpretation:

This report enables a rapid assessment of status of stockpile marking (above), particularly useful to ensure that all horns are marked. Another application is when stocks are being remarked, perhaps when adopting a new marking technique.

The second part of the report provides a detailed breakdown of all horns implanted with transponders (below). Horns are listed in decreasing order of transponder number.

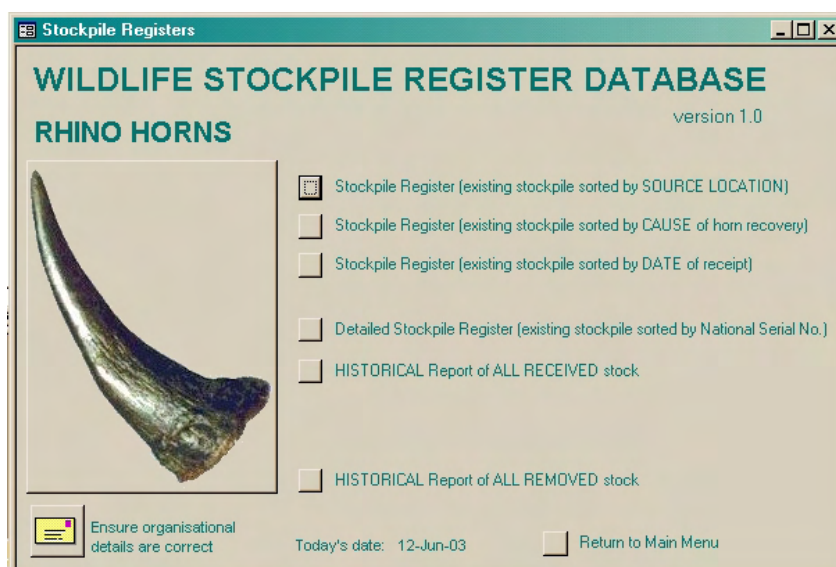
Report of entire existing rhino horn stockpile, sorted by transponder number

| Transponder number and date | National Serial No. | Date received | Recovery date | Source location | Cause of horn recovery | Species | Item desc. | Horn position | Weight (kg) | Outside curve (cm) | Markings on horn |
|-----------------------------|------------------------|---------------|---------------|-----------------|------------------------|---------|------------|---------------|-------------|--------------------|------------------|
| 8756 | NPA2002008 | 26/11/2002 | 18/03/2002 | National Park A | Poached | White | Whole horn | Rear | 1.90 | 9.50 | NPA2002008 |
| 8743 | NPA2001007 | 28/12/2001 | 25/08/2001 | National Park A | Natural/Oldage | Unknown | Whole horn | Rear | 2.20 | | NPA2001007 |
| 7875 | NPA2002007 | 26/11/2002 | 18/03/2002 | National Park A | Poached | White | Whole horn | Front | 4.50 | 29.00 | NPA2002007 |
| 7833 | NPA2002005 | 26/11/2002 | 09/04/2002 | National Park A | Poached | White | Whole horn | Front | 3.40 | 37.00 | NPA2002005 |
| 4363 | NPA2001006 | 28/12/2001 | 25/08/2001 | National Park A | Natural/Oldage | Unknown | Whole horn | Unknown | 4.60 | 38.00 | NPA2001006 |
| 3675 | NPA2001004 | 28/12/2001 | 10/09/2001 | National Park A | Natural/Oldage | White | Whole horn | Rear | 3.90 | 26.00 | NPA2001004 |
| 3674 | NPA2001003 | 28/12/2001 | 10/09/2001 | National Park A | Natural/Oldage | White | Whole horn | Front | 7.65 | 57.00 | NPA2001003 |
| 2731 | NPA2002006 | 26/11/2002 | 09/04/2002 | National Park A | Poached | White | Whole horn | Rear | 1.40 | 12.50 | NPA2002006 |
| 2653 | NPA2002003 | 26/11/2002 | 04/04/2002 | National Park A | Poached | Black | Whole horn | Front | 2.70 | 29.00 | NPA2002003 |
| 2348 | NPA2002004 | 26/11/2002 | 04/04/2002 | National Park A | Poached | Black | Whole horn | Rear | 0.90 | 7.00 | NPA2002004 |
| 1762 | 31/12/2002 ZM2000/S045 | 04/12/2000 | 01/12/2000 | Unknown | Seizure | White | Whole horn | Front | 4.80 | 32.00 | ZM2000/S045 |
| 1256 | NPA2001001 | 28/12/2001 | 04/01/2001 | National Park A | Natural/Oldage | White | Whole horn | Front | 2.60 | 17.00 | NPA2001001 |

c. Is there an effective registration process for the stockpile?

Justification: Without proper registration protocols, there remains a greater risk of theft or illegal trade. Audits rely on adequate paper trails and registration processes.

Selecting this button opens another form, which can also be accessed directly from the main menu by selecting <**Stockpile Registers**>. Six options are provided. These registers are not only useful as detailed references for horns in stock, but also during audits and as supporting documentation for other reports detailed above.



NORMAL STOCKPILE REGISTERS: The first three reports on the <Stockpile Registers> menu are **normal stockpile registers**, which are lists of the **existing stockpile** available in three forms: sorted by **source location**, **cause of horn recovery** (see below), or receipt **date of receipt**.

Report of entire existing rhino horn stockpile, sorted by cause of horn recovery

| Cause of horn recovery | Date received | Document No. | Register Item No. | Station Serial No. | Recovery date | Source location | Species | Item desc. | Horn position | Weight (kg) | National Serial No. |
|------------------------|---------------|--------------|-------------------|--------------------|---------------|-----------------|---------|------------|---------------|-------------|---------------------|
| Natural/Old age | | | | | | | | | | | |
| Detail | | | | | | | | | | | |
| | 20/12/2002 | IV2785 | | NP&2002.0 | 06/06/2002 | National Park A | White | Whole horn | Rear | 1.50 | NP&2002.01 |
| | 20/12/2002 | IV2785 | | NP&2002.0 | 12/07/2002 | National Park A | Black | Whole horn | Front | 3.40 | NP&2002.01 |
| | 20/12/2002 | IV2785 | | NP&2002.0 | 12/07/2002 | National Park A | Black | Whole horn | Rear | 1.90 | NP&2002.01 |
| | 28/12/2001 | IV1785 | | NP&2001.0 | 04/01/2001 | National Park A | White | Whole horn | Front | 2.60 | NP&2001.00 |
| | 28/12/2001 | IV1785 | | NP&2001.0 | 10/09/2001 | National Park A | White | Whole horn | Front | 7.65 | NP&2001.00 |
| | 28/12/2001 | IV1785 | | NP&2001.0 | 10/09/2001 | National Park A | White | Whole horn | Rear | 3.90 | NP&2001.00 |
| | 28/12/2001 | IV1785 | | NP&2001.0 | 25/08/2001 | National Park A | Unknown | Whole horn | Unknown | 4.60 | NP&2001.00 |
| | 28/12/2001 | IV1785 | | NP&2001.0 | 25/08/2001 | National Park A | Unknown | Whole horn | Rear | 2.20 | NP&2001.00 |
| | 28/04/2001 | IV2536 | | NP&2001.0 | 16/03/2001 | National Park B | Black | Whole horn | Rear | 2.50 | NP&2001.00 |
| | 28/04/2001 | IV2536 | | NP&2001.0 | 16/03/2001 | National Park B | Black | Whole horn | Rear | 1.00 | NP&2001.00 |
| | 27/03/2001 | IV3465 | | NP&2001.0 | 12/02/2001 | National Park B | Black | Horn tip | Rear | 4.10 | NP&2001.00 |
| | 27/03/2001 | IV3465 | | NP&2001.0 | 12/02/2001 | National Park B | Black | Whole horn | Rear | 2.10 | NP&2001.00 |
| | 25/11/2000 | IV1278 | | NP&2000.0 | 25/10/2000 | National Park A | Black | Whole horn | Front | 4.70 | NP&2000.01 |
| | 25/11/2000 | IV1278 | | NP&2000.0 | 25/10/2000 | National Park A | Black | Whole horn | Rear | 1.50 | NP&2000.01 |
| | 02/06/2000 | IV5242 | | NP&2000.0 | 02/03/2000 | National Park B | Black | Whole horn | Front | 2.80 | NP&2000.00 |
| | 02/06/2000 | IV5242 | | NP&2000.0 | 02/03/2000 | National Park B | Black | Whole horn | Rear | 1.80 | NP&2000.00 |
| | 02/06/2000 | IV5242 | | NP&2000.0 | 02/04/2000 | National Park B | Black | Whole horn | Front | 3.80 | NP&2000.00 |

DETAILED STOCKPILE REGISTERS: The last three reports on the <Stockpile Registers> menu provide more **detailed** information for each horn. The first option provides detailed information for each horn contained within the **existing stockpile**.

WILDLIFE STOCKPILE REGISTER DATABASE

Report of existing rhino horn stockpile, sorted in order of national serial number

| National Serial Number | Document details | Horn description | Horn markings | |
|------------------------|---------------------|------------------|---------------------------------|-----------------------------------|
| NPA/2001/001 | Date received: | 28/04/2001 | Species: Black | Visible marking: Marker pen |
| | Source location: | National Park B | Item description: Whole horn | Markings on horn: NPA/2001/001 |
| | Cause of death: | Natural/old age | Horn position: Rear | Additional marking: None |
| | Station serial no.: | NPA/2001/001 | Weight (kg): 2.50 | Transponder no.: |
| | Recovery date: | 16/03/2001 | OC, IC, BG (cm): 21.0 | Photograph ref.: |
| | Register doc. no.: | IV2536 | Condition: Normal | Storage location: |
| | NPA/2001/002 | Date received: | 28/04/2001 | Species: Black |
| Source location: | | National Park B | Item description: Whole horn | Markings on horn: NPA/2001/002 |
| Cause of death: | | Natural/old age | Horn position: Rear | Additional marking: None |
| Station serial no.: | | NPA/2001/002 | Weight (kg): 1.00 | Transponder no.: |
| Recovery date: | | 16/03/2001 | OC, IC, BG (cm): 7.5 | Photograph ref.: |
| Register doc. no.: | | IV2536 | Condition: Normal | Storage location: |
| NPA2000/001 | | Date received: | 01/04/2000 | Species: Black |
| | Source location: | National Park A | Item description: Whole horn | Markings on horn: NPA2000/001 2.4 |
| | Cause of death: | Natural/old age | Horn position: Rear | Additional marking: None |
| | Station serial no.: | NPA2000/001 | Weight (kg): 3.00 | Transponder no.: |
| | Recovery date: | 01/01/2000 | OC, IC, BG (cm): 21.0 17.0 26.0 | Photograph ref.: |
| | Register doc. no.: | IV1245 | Condition: Normal | Storage location: |

The second and third options provide a summary list of **all horns received into the stockpile** (including horns that may have been since removed) and a summary of **all horns removed from the stockpile** (example given below).

WILDLIFE STOCKPILE REGISTER DATABASE

Historical report of all removed rhino horns

| Date removed | Destination | Description | Serial Number | Weight (kg) | Document Ref |
|----------------------|------------------|-------------|---------------|-------------|--------------|
| 31/01/2003 | | Destroyed | NPA2002/012 | 3.10 | |
| 2003 Summary: | 1 units weighing | 3.10 Kg | | | |
| 06/08/2002 | | Destroyed | NPB/2000/005 | 4.20 | |
| 14/12/2002 | None | Destroyed | NPA2002/009 | 3.80 | IV3894B |
| 2002 Summary: | 2 units weighing | 8.00 Kg | | | |

5. **MANAGEMENT REPORTS – THREAT OF ILLEGAL ACTIVITIES:** Three reports are available, aiming to help answer the following management questions:

a. **What are the levels of poaching, trends in mortalities and what is the overall impact of mortalities on populations?**

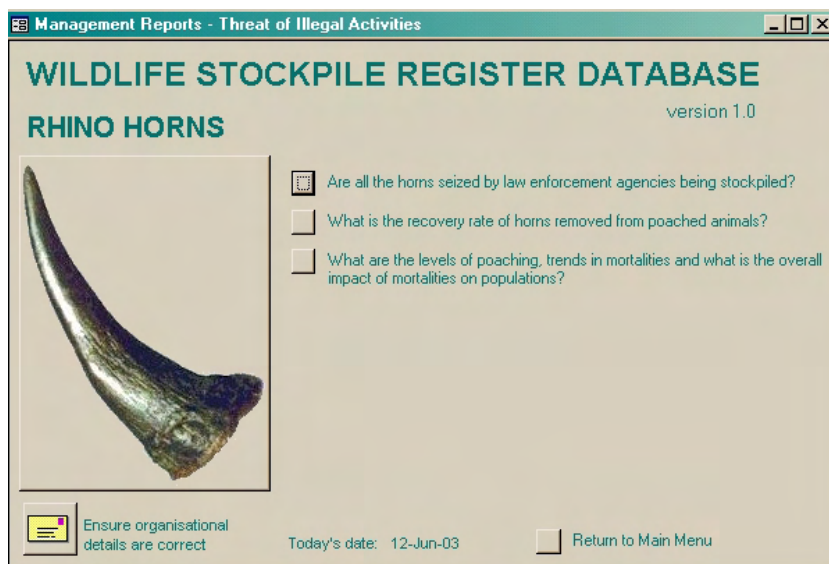
Justification: It is vital to track changes in poaching levels to ascertain *threat levels* to populations. Without relating mortalities to population size and trends, the *real impact* of mortalities cannot be ascertained.

b. **What is the recovery rate of horns entering illegal trade from poached animals?**

Justification: It is important to monitor the *success rate* of law enforcement following a poaching in addition to effectiveness in the field to prevent poaching.

c. **Are all the horns seized by law enforcement agencies being stockpiled?**

Justification: It is important to ensure that all seized horns *are actually stockpiled* following forfeiture.



The content of the three reports are outlined below:

a. **What are the levels of poaching, trends in mortalities and what is the overall impact of mortalities on populations?**

Justification: It is vital to track changes in poaching levels to ascertain *threat levels* to populations. Without relating mortalities to population size and trends, the *real impact* of mortalities cannot be ascertained.

Interpretation:

Levels of poaching may not alone be determined from the absolute numbers of poached carcasses found since one of the major factors influencing the detection rate of carcasses is the level of law enforcement/patrol effort (which also influence levels of poaching). Unfortunately, it is often difficult to collect accurate and comparable information on law enforcement/patrol levels. However, in many populations, a good **indication of changes in poaching levels** may be deduced by looking at changes in the **ratio of poached carcasses to other carcasses from natural causes** (see Figure 1 in sample report below). The advantage with this indicator is that it is independent

of law enforcement/patrol effort. For example, during a year when field law enforcement levels decline, the detection rate of both illegally killed carcasses and natural mortalities will drop by the same degree, and hence the ratio will still provide an indicator of poaching levels.

The **relevance of changes in poaching levels on a given population** can be determined by looking at the **changes in numbers of poached carcasses expressed as a percentage of the entire population** (see Figure 2 in sample report below). However, it should be noted that this might only be useful with larger populations since not only may poaching pressure reduce at lower populations but also the sample size may not be statistically large enough.

National Park B

Figure 1.
Intpretation: larger proportions of red indicate higher detected levels of poaching.

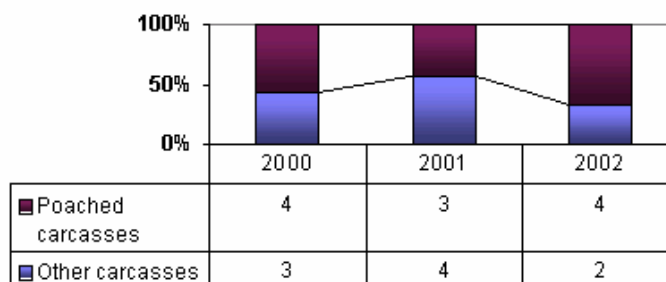
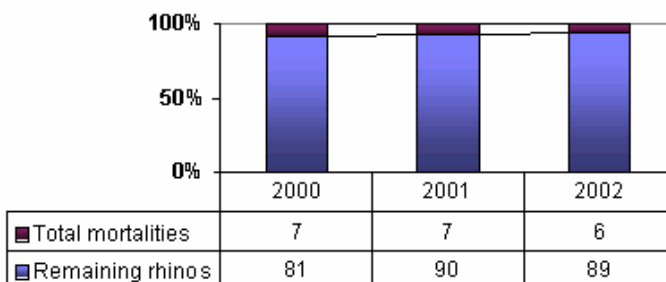


Figure 2.
Intpretation: larger proportions of red indicate a potentially greater impact on the population.



Note: This report requires completion of the <Rhino Populations and Mortalities> form (see page 14).

b. What is the recovery rate of horns entering illegal trade from poached animals?

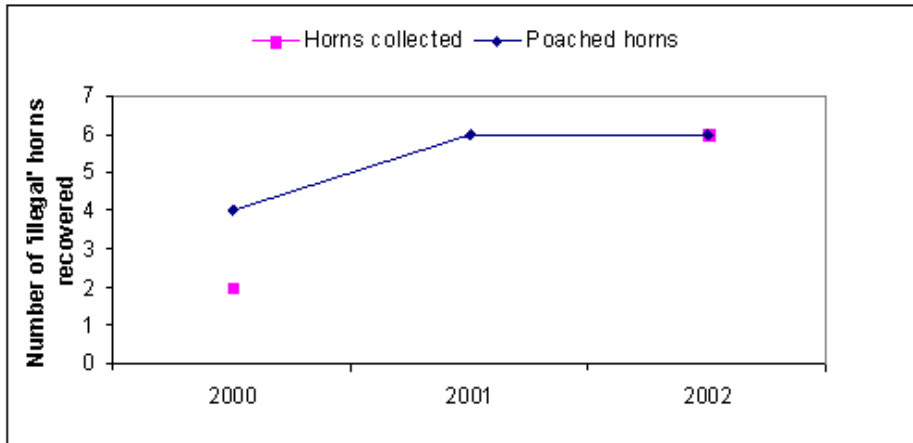
Justification: It is important to monitor the *success rate* of law enforcement following a poaching in addition to effectiveness in the field to prevent poaching.

Interpretation:

This graph compares the number of horns that *should* have been recovered from ‘illegal’ sources (i.e. twice the number of poached carcasses – since each rhino possesses two horns) with the *actual* number of horns received from seizures and recoveries from poached animals. Rarely will the two lines match, especially given the difficulties with infiltrating illegal syndicates and recovering poached horns. However, the percentage of recovered horns gives an indication of reactive law enforcement success following poaching incidents. Separate graphs allow comparison between reserves.

Note: This report requires completion of the <Rhino Populations and Mortalities> and <Seizures> forms (see pages 14 and 15).

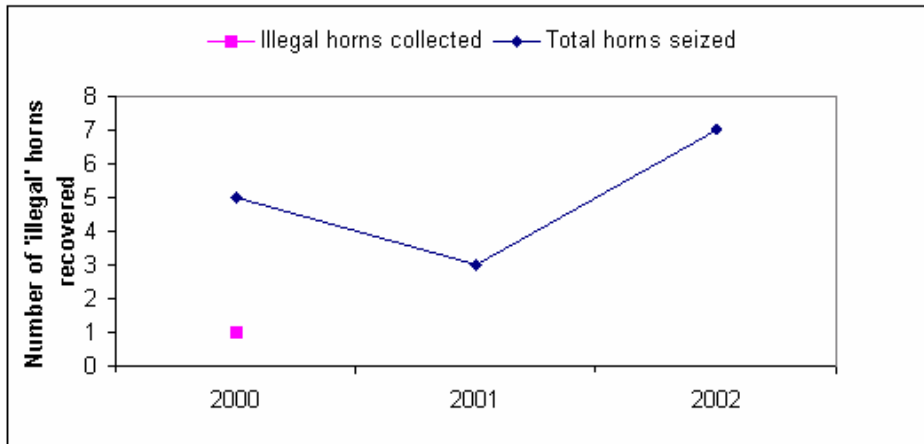
National Park A



| Summary of data: | Year | Horns recovered from seizures and poached carcasses | Number of horns potentially lost to poachers (i.e. no. poaching incidents x2) |
|------------------|---------------|---|---|
| | 2002 | 6 | 6 |
| | 2001 | 6 | 6 |
| | 2000 | 2 | 4 |
| | Total: | 8 | 16 |

c. Are all the horns seized by law enforcement agencies being stockpiled?

Justification: It is important to ensure that all seized horns *are actually stockpiled* following forfeiture.



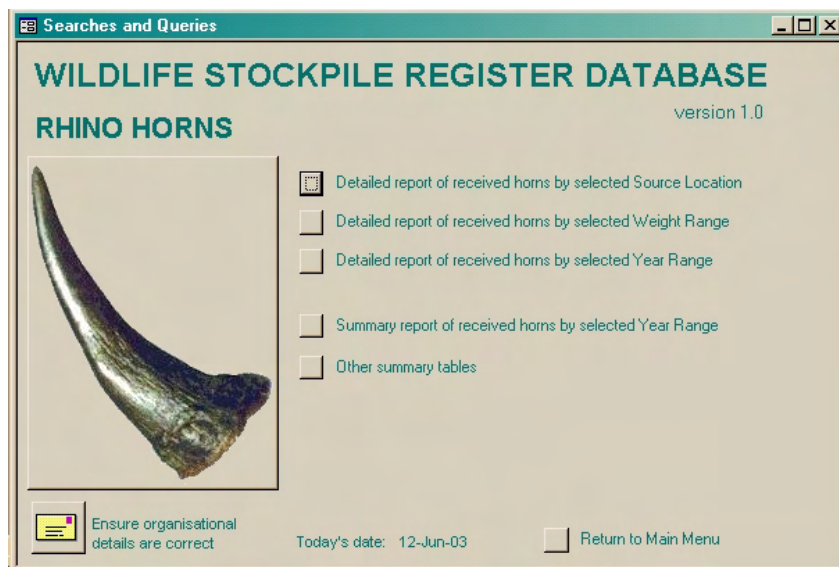
Interpretation:

This graph compares the number of horns that *should* have been recovered from seizures (i.e. number of horns seized) with the *actual* number of seized horns received in the stockpile. Ideally, the two lines should match although there may be reasons for a mismatch. For example, horns may be retained by law enforcement agencies during ongoing court cases. Separate graphs allow comparison between reserves.

Note: This report requires completion of the <Seizures> forms (see page 15).

7 INTERACTIVE QUERIES

- In addition to the extensive selection of reports and registers detailed above, the database offers several interactive queries or searches. These are accessed by selecting <Searches and Queries> from the Main Menu.



- The first three selections produce detailed reports of the existing stockpile, according to source location, weight range of horns, or date range (of horn receipt).

a. Selected Source Location

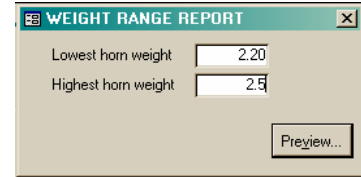
This is the same procedure explained earlier for viewing horn entries (see page 12). Select a **specific location** by pressing the grey box with arrow on the left-hand side, and then press the button in the top right. The following report will include all horns received from that location.

| Location name | Category | Region/Province | Country |
|-----------------|---------------|-----------------|---------|
| National Park A | National Park | Region X | Zambia |
| National Park B | National Park | Province Y | Zambia |
| Game Reserve A | Game Reserve | Province A | Zambia |
| City A | City | Province B | Zambia |

| Date received | Source location | Cause of death | National Serial No. | Recovery date | Register doc. no. | Condition | Species | Item description | Weight (kg) | OC, IC, BG (cm) | Horn position | Rear | Visible marking | Marker pen | Removal date | Description | Destination | Transponder no. | Removal Ref. | Photograph ref. | Remarks |
|---------------|-----------------|-----------------|---------------------|---------------|-------------------|-----------|---------|------------------|-------------|-----------------|---------------|------|-----------------|------------|--------------|-------------|-------------|-----------------|--------------|-----------------|---------|
| 28/04/2001 | National Park A | Natural/Old age | NPA/2001/00 | 16/03/2001 | IV2536 | Normal | Black | Horn tip | 4.10 | 29.00 | Rear | | None | | | | | | | | |
| 27/03/2001 | National Park B | Natural/Old age | NPB/2001/00 | 12/02/2001 | IV3465 | Normal | Black | Whole horn | | | Rear | | None | | | | | | | | |

b. Selected Weight Range

To produce a report based on a range of horn weights, define the lowest and highest weight limits. This is particularly useful to help rule out the possibility of seized horn having come from a stockpile – the stockpile can be checked according to this register output, queried for similarly-sized weights.



Report of existing rhino horn for horns weighing between: 2.2 and 2.5 kg

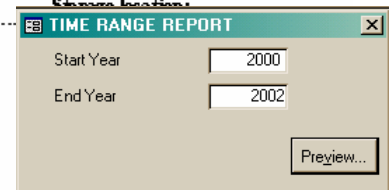
| National Serial Number | Document details | Horn description | Horn markings | |
|------------------------|---------------------|------------------|------------------------------|--|
| NPA2001/00 | Date received: | 28/12/2001 | Species: Unknown | Visible marking: Tags or discs |
| | Source location: | National Park A | Item description: Whole horn | Markings on horn: NPA2001/007 |
| | Cause of death: | Natural/old age | Horn position: Rear | Additional marking: Transponder or micro |
| | Station serial no.: | NPA2001/007 | Weight (kg): 2.2 | Transponder no.: 8743 |
| | Recovery date: | 25/08/2001 | OC, IC, BG (cm): | Photograph ref.: |
| | Register doc. no.: | IV1785 | Condition: Normal | Storage location: |
| 3434756 | Date received: | 10/06/2003 | Species: Black | Visible marking: Tags or discs |
| | Source location: | National Park A | Item description: Whole horn | Markings on horn: 234342 |
| | Cause of death: | Predation | Horn position: Rear | Additional marking: None |
| | Station serial no.: | 3434756 | Weight (kg): 2.3 | Transponder no.: |
| | Recovery date: | 10/01/2003 | OC, IC, BG (cm): | Photograph ref.: |
| | Register doc. no.: | 763482 | Condition: Normal | Storage location: |
| NPA/2001/0 | Date received: | 28/04/2001 | Species: Black | Visible marking: Marker pen |
| | Source location: | National Park B | Item description: Whole horn | Markings on horn: NPA/2001/001 |
| | Cause of death: | Natural/old age | Horn position: Rear | Additional marking: None |
| | Station serial no.: | NPA2001/001 | Weight (kg): 2.5 | Transponder no.: |
| | Recovery date: | 16/03/2001 | OC, IC, BG (cm): 21 | Photograph ref.: |
| | Register doc. no.: | IV2536 | Condition: Normal | Storage location: |

c. Selected Date Range

Similarly, a report may be produced according to a selected year range, sorted by declining date of receipt at stockpile.

Report of existing rhino horn for horns received between: 2000 and 2002

| National Serial Number | Document details | Horn description | Horn markings | |
|------------------------|---------------------|------------------|------------------------------|--------------------------------|
| NPA2002/01 | Date received: | 20/12/2002 | Species: Black | Visible marking: Tags or discs |
| | Source location: | National Park A | Item description: Whole horn | Markings on horn: NPA2002/016 |
| | Cause of death: | Unknown cause | Horn position: Front | Additional marking: None |
| | Station serial no.: | NPA2002/016 | Weight (kg): 5.3 | Transponder no.: |
| | Recovery date: | 12/12/2002 | OC, IC, BG (cm): 47 42 | Photograph ref.: |
| | Register doc. no.: | IV2785 | Condition: Normal | Storage location: |
| NPA2002/01 | Date received: | 20/12/2002 | Species: Black | Visible marking: Tags or discs |
| | Source location: | National Park A | Item description: Whole horn | Markings on horn: NPA2002/015 |
| | Cause of death: | Natural/old age | Horn position: Rear | Additional marking: None |
| | Station serial no.: | NPA2002/015 | Weight (kg): 1.9 | Transponder no.: |
| | Recovery date: | 12/07/2002 | OC, IC, BG (cm): 18 16 26 | Photograph ref.: |
| | Register doc. no.: | IV2785 | Condition: Normal | Storage location: |
| NPA2002/01 | Date received: | 20/12/2002 | Species: Black | Visible marking: Tags or discs |
| | Source location: | National Park A | Item description: Whole horn | Markings on horn: NPA2002/014 |
| | Cause of death: | Natural/old age | Horn position: Front | Additional marking: None |
| | Station serial no.: | NPA2002/014 | Weight (kg): 3.4 | Transponder no.: |
| | Recovery date: | 12/07/2002 | OC, IC, BG (cm): 32 | Photograph ref.: |
| | Register doc. no.: | IV2785 | Condition: Normal | Storage location: |



3. The fourth button <Summary report of all received horns by selected year range> produces, as the title suggests, a summary of received horns for each location, both number and weight.

| ACCUMULATION OF HORN (kg) BY SOURCE AND SELECTED DATE RANGE : Select Query | | |
|--|-------------------|--------------------------------|
| Source location | Total Weight (kg) | Total number of horns received |
| National Park A | 66.65 | 22 |
| National Park B | 5.6 | 3 |

4. Lastly, selecting <Other summary tables> produces another menu from which three useful tables can be viewed:

| Source location | Item description | Total number | 2000 | 2001 | 2002 | 2003 |
|-----------------|------------------|--------------|------|------|------|------|
| National Park A | Whole horn | 35 | 11 | 5 | 17 | 2 |
| National Park A | Horn tip | 1 | | 1 | | |
| National Park B | Whole horn | 12 | 9 | 3 | | |
| National Park B | Horn tip | 1 | | 1 | | |
| City A | Whole horn | 1 | 1 | | | |

| Location name | Item description | Total Weight (kg) | Dehorning | Disease | Fighting | Na |
|-----------------|------------------|-------------------|-----------|---------|----------|----|
| National Park A | Horn tip | 0.50 | 0.50 | | | |
| National Park A | Whole horn | 99.90 | | 4.20 | 17.10 | |
| National Park B | Horn tip | 4.10 | | | | |
| National Park B | Whole horn | 29.60 | | | 14.70 | |
| Unknown | Whole horn | 4.80 | | | | |

| Location name | Item description | Total | Dehorning | Disease | Fighting | Natural | Poached | Seiz |
|-----------------|------------------|-------|-----------|---------|----------|---------|---------|------|
| National Park A | Horn tip | 1 | 1 | | | | | |
| National Park A | Whole horn | 31 | | 2 | 4 | 14 | 8 | |
| National Park B | Horn tip | 1 | | | | | 1 | |
| National Park B | Whole horn | 11 | | | 4 | 7 | | |
| Unknown | Whole horn | 1 | | | | | | |

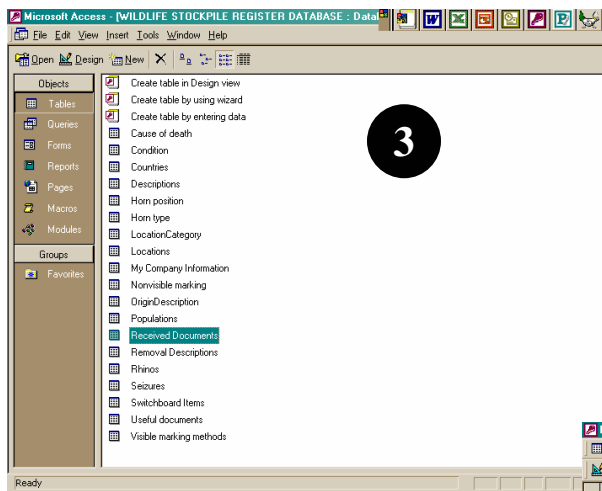
8 DELETING SAMPLE RECORDS

NOTE: THIS PROCEDURE CANNOT BE UNDONE! It should *only* be followed after reading all instructions and before starting data entry.

Step 1: To delete sample records, first 'minimise' the menu screen by pressing the button marked “_” at top right corner.

Step 2: Then 'maximise' (make large) the other screen item by pressing the button marked “□”.

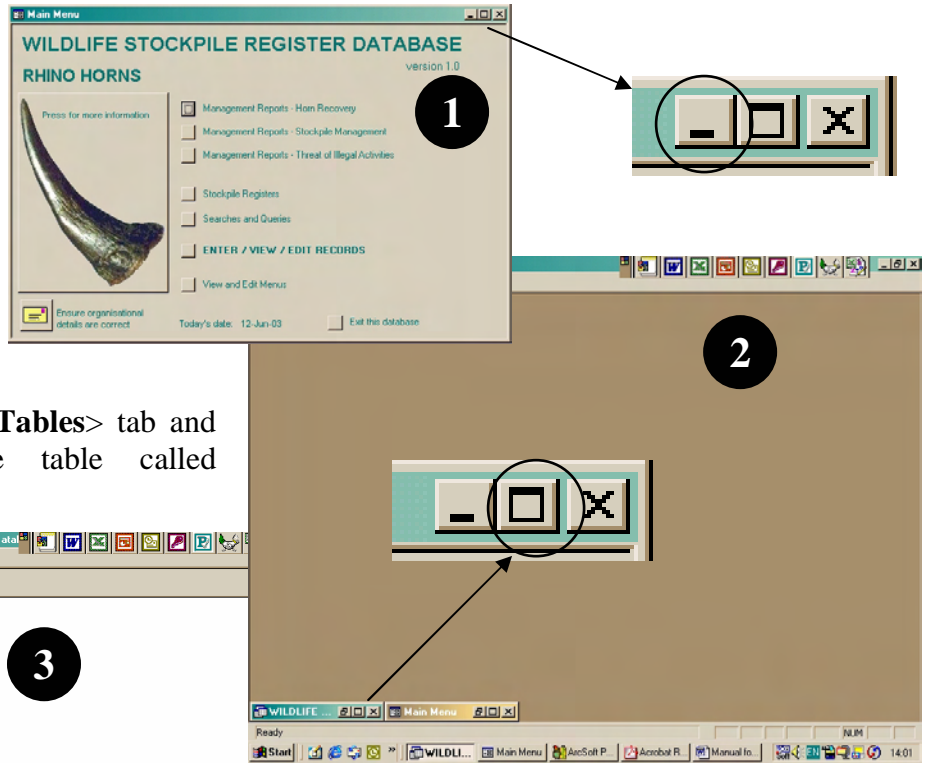
Step 3: Next select the <Tables> tab and double-click (open) the table called <Received Documents>.



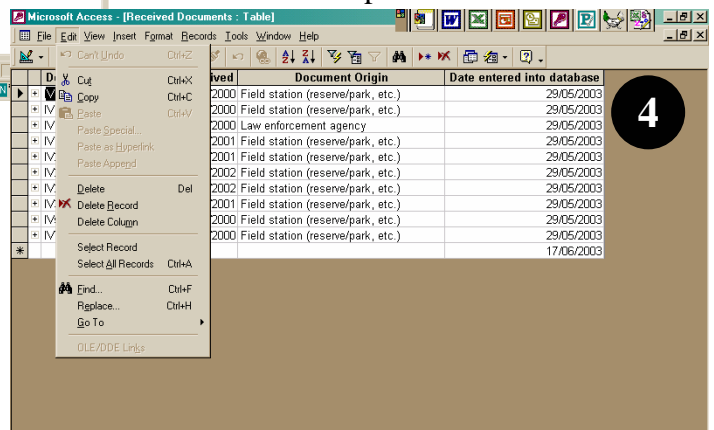
Step 5: Close the database (press “X” in top right corner) and then reopen the database (see page 3).

Step 6: To check all records have been deleted, select <Edit Horn Records> from the <View/Enter/Edit Records> menu (see page 13). The screen should not contain any document records.

If in doubt, make a back-up copy of the database before deleting records.



Step 4: Use the mouse to select <Select All Records> from the <Edit> menu, and then <Delete Record> from the same <Edit> menu at top of screen.



9 SECURITY AND BACKING UP DATA

1. **Access** to the computer holding this database should be **restricted** to, ideally, no more than the necessary personnel, to prevent unauthorised access and misuse of information.
2. It is recommended that a **full electronic back up** of the database be made at least every two months. The copied version should be renamed to include the date of back-up, for example, 'WSRD ZM 1 Jun 02'
3. If possible, a copy should be also made on CD-ROM every six months and stored in a separate, *secure* location.
4. It is further recommended that a **hard copy** of important register reports be made at least every three months. For example, <Detailed Stockpile Register> and <Stockpile Register (existing stockpile sorted by DATE of receipt)>. These hard copies should be *securely* stored.

10 ACKNOWLEDGEMENTS

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Further information on the SADC Regional Programme for Rhino Conservation may be obtained from the following address:

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