Data Organize and Search Prototype Game Design

This is one of three game design documents created for the NSF-AISL Pathways funded project, AISL Pathways: The Role of Story in Games to Teach Computer Science Concepts to Middle School Girls (http://nuweb1.neu.edu/gramshouse/storyteach-project-description/). Each game is intended to introduce participants to one computer science concept, drawn from the Computer Science Principles framework developed by the College Board (see http://apcsprinciples.org/). Each game has three versions: (a) the basic game, which consists of puzzles or problem-solving activities within a game format, (b) game with context, which consists of the same kind of problem-solving activities situated in a fictional setting, that gives meaning to the activities, and (c) game with story, which embeds these activities in a more fully developed narrative, with a plot and resolution.

Learning Objective: Well organized data can achieve an easier and quicker search results for any one data item. Different organizations of the data are useful for an efficient search, depending on the problem being solved.

Game Overview
Players compete to be the first one to isolate (single out) their unique target card from a deck of standard playing cards by organizing, dividing, and merging the cards into piles according to rules spelled out on Action Cards.

Players: 3 - 6 players (best with 4 or 5), age 10 and above

Materials:
- 2 decks of playing cards
- Deck of Abstract Action Cards: Search-Sort-4-Action-Cards (here: https://docs.google.com/document/d/1NmflV-0-wfC5zdCc99HGs7NNS8TqHqDGnkOMcKGwWWo/edit?usp=sharing
- Character cards (story version only)
- Story Action Cards (story version only) (here: https://docs.google.com/document/d/1IUccOWtpKgg4RCHo-Jy_0XWbEUI1_ZhaY5-TfJO01g4/edit?usp=sharing

Note: In place of standard playing cards, the items to sort can be anything else that has at least 4 categories of similarity-difference (e.g. suit, color, value, face-card-vs-number card). A category can also be cards with even vs odd value, etc
Introduction

Note: Be sure to emphasize the term data during the intro, and play of this game.

1. Activity 1: Demonstrate or discuss how searching for one item in a large group of random items is long and tedious, including an example from players’ lives.
   a. Place a deck of cards face down spread out over the table
   b. Ask two students to look for the King of Hearts turning up one card at a time
   c. Give them 10 seconds to find it. Then give them 10 more seconds.
   d. Ask the students how much longer they think it will take to find it.

2. Activity 2: Demonstrate searching in a sequentially sorted set of cards using the binary search. This will be demonstrated by 2 facilitators.
   a. This ordered set of items will be a group of numbered cards, each with a book title, the book’s author, its year of publication, and a book number.
   b. One facilitator asks the other to locate the title for book number nnn
   c. The second facilitator uses the binary search method, explaining to the students how it works, with a sorted deck of cards.

3. Activity 3: A similar demonstration will be completed by a facilitator and 1-2 students in the class using a second deck of the same cards, now ordered alphabetically by title, looking for a specific title, wanting to know the date it was published. Point out that the cards had to be sorted again, this time by title.

4. Activity 4: Ask the class, how do we find a book when we know the author but are unsure of the title? Discuss openly.
   a. Place the cards face up, and spread out with no order on a student table.
   b. Ask the table of students to group the cards by author based on the previous discussion.
   c. Now, how hard would it be to find a specific book by an author in their author category groupings?
   d. Given an index card with a book’s title, author, and year of publication, allow the students to find the matching index card in their category data. Once found, discuss.

Setting Up the Game

Place a standard deck of playing cards (minus the jokers) in the center of the table, face-up and spread around in a single large pile.

On the first round of play, deal each player four Action Cards from the Action Card deck. Players should keep their Action cards hidden from other players.

Place the rest of the Action Cards face-down to form a draw pile.
Explain: “Action Cards will help you organize the large pile of cards. You will sort cards to form new piles, merge piles, and divide piles with the goal of isolating (singling out) a target card from the deck. Each player will have a unique target card, so you are competing to single out your target card first, by using the Action cards wisely and strategically.”

Rules for Playing

1. The youngest player goes first and each player takes a turn, clockwise (to the left) around the table.
2. To take a turn: A player selects an Action card from their hand, reads it aloud, and does what the card says to do.
   
   Example of an Action Card:
   “Divide the cards in one pile to form two piles of an equal number of cards.
   (If the original pile is odd, one of the new piles will have an extra card.)”

   The player selects the Action Card from their hand that will enable them to best organize the piles of cards so that when they draw a target card, they will be able to isolate it in 1 or 2 turns around the table, before the other players do.
3. The player then places the used Action card in the discard pile and draws a new Action card from the top of the deck to end the turn.
4. If the player cannot play any of the four Action cards in their hand, they may discard any two Action Cards from their hand into the discard pile and draw two new ones from the top of the draw pile. The turn ends.
5. When the stack of Action cards is depleted, shuffle the discard pile and turn it face-down to form a new draw pile.
6. After players have taken two turns (twice around the table), each player picks a Target Card at random from the second deck of playing cards, looks at it, and places it face-down on the table to hide it from the other players. From that time forward, the players are now searching for an organization of the piles of playing cards, that would enable them to obtain their their target card from the piles on the table.
7. Winning: Each player has a Target Card that the player is trying to isolate from the rest of the cards that are in play. The first one to do so is the winner. The other players continue to play for second place, third place, and so on.
8. After all the players have isolated their target card, discuss the strategy of sorting the cards and playing the game. At the end of the short discussion, the facilitator gives each player a strategy question for the player to answer. If the player answers correctly, they get an extra action card of their choice, at the beginning of the next game.
9. At the start of game 2, game 3, etc, each player gets to visually select one action card, and draw the other three (3) Action cards from the shuffled draw stack of action cards.

Directions to Facilitator:

1. Action Cards are located in a separate file:
   ○ Name: Search-Sort-4-Action-Cards
2. **Recommended Action Card Quantity:** Print 3 copies of the first page of Action Cards (these six cards are more general and easier to play) and 2 copies of the second page of Action Cards (these six cards are more specific and trickier to play). Print them on stiff card stock if possible to make them easier to pick up and shuffle and cut them out.

3. **Beginners:** The first time your group plays this game, it is suggested to stack the top of the Action Card deck with all the first-page Action Cards (3 copies of 6 cards = 18 cards—so that each player gets one of the first four Action cards) and put the second-page Action Cards on the bottom of the deck. That way, these easier more general cards are used during the first two rounds of the game.

4. **New to Card Games:** If your players are young or inexperienced with card games, you may need to explain what suits are (club, diamond, spade, heart—two red, two black) and face-cards are (jack, queen, king). The ace card is like a “1” card in this game. You may also need to explain some of the Action Cards, especially with multiple steps, so be sure to review and understand each Action Card ahead of time.

5. **Explain the game carefully.** Be clear about the winning goal (rule #7—single out your target card). Use the example in rule #2 to show them how to use the Action Cards. Stress that some Action Cards are more useful at the beginning, and some are needed in the middle to prepare for the winning step, i.e. to begin to separate out their target card, and some are better saved until last to actually isolate the target card to win!

6. Inform players that this game takes *a few times to play* (three is recommended for beginners). They will get better at dividing the piles to enable them to isolate their Target card. Learning strategy takes another time thru the game. **Do not get discouraged!**

**Materials to bring to focus groups:**

- 4 regular decks of playing cards (different backing color preferred)
- 4 custom decks of cards
- Action Cards (assuming 15 students, we will need 8 copies of the first page, and 5-6 copies of the second page; cut into cards and assembled in a deck with the first-page cards on top)
- Sheet to keep track of score

**Potential sheet grid to keep track of game play**

<table>
<thead>
<tr>
<th>Start Time:</th>
<th>Finish Time:</th>
<th>Time of 1st Win:</th>
</tr>
</thead>
</table>

Check the round when each player found their villain
Facilitator Script for Focus Test Groups

Abstract Version

Hello, my name is ______________ and I will be introducing you to a fun and interesting game called “Villain Search.” It’s about organizing and searching through data in order to find a villain. In this game, you will start off by organizing a big pile of cards that have categories of data such as suits (like spades and hearts), or color (red or black), or face cards (jack, queen, king), vs numbers, and so on. You will do this by following the rules written on Action Cards. Now, be mindful how you choose to organize the big data piles, into smaller piles by category, because after the first two rounds are complete you will be given a random Target Card. This card is the villain, the person you must find and single out from the rest by using your Actions Cards wisely. Here’s a tip: Some Action Cards are more helpful later in the game; others are better played earlier. We will play until someone separates their Target villain card from the pile, and wins the game! We will keep on playing for 2nd, 3rd, 4th place and so on. Now, I will demonstrate some of the action cards and how you can use them to group the cards, and eventually catch the villain. (PAUSE to demonstrate) Let’s get started and have some fun! The more you play, the better you can get! Strategize, organize the data, and let’s have some fun!

Context Version:
Hello, my name is _______________ and I will be introducing you to a fun and interesting game called “Villain Search.” It’s about organizing and searching through data in order to find a villain. The villains are illegal Poachers and Sellers of wild animal parts from Africa and Asia. In this game, you are the special agents skilled at catching these villains. You will start off by organizing a big pile of cards that have categories of animals such as elephants, Rhinos, tigers and sharks, or color category of red or black, or poacher and seller cards, and number cards, and so on. You will do this by following the rules written on Action Cards. Now, be mindful how you choose to organize the big data piles, into smaller piles by category, because after the first two rounds are complete you will be given a random Target Card. This card is the villain, the Poacher or Seller you must find and isolate from the international data pool of all the poachers and Sellers, by using your Actions Cards wisely. Here’s a tip: some Action Cards are more helpful later in the game; others are better played earlier. We will play until someone separates their Target villain card from the pile to catch the villain with their illegal animal parts, and wins the game! Each team will keep on playing for 2nd, 3rd, 4th place etc to catch all the villains. Now I will demonstrate some of the action cards, and how you can use them to group the cards, and eventually catch the villain. (PAUSE to demonstrate) Let’s get started and have some fun! The more you play, the better you can get! Strategize, organize data, and let’s have some fun!

Just before the last round:
We meet the “billionaire” and hear his call to action, his X-Prize-like contest for tracking down the Poachers and Sellers and recovering the wild animal goods. Who will win the prize? There is
a personal prize for each winner of each team, and a team prize for the team that captures all their villains first!

**Story Version**

Hello, my name is _______________ and each of you is about to take the central role of a story-game called “Trackdown! The Global Quest to Save Wildlife. The story begins with this news flash:

On July 30, 2015, the United Nations issued an urgent call to all countries to crack down on the illegal killing and selling of elephants, rhinos, and other endangered species. Why the sudden alarm bell? Poaching has soared to critically high rates, threatening certain populations in Asia and Africa with extinction.

Each of you is a newly recruited wildlife agent on a special mission to track down Poachers and Sellers of these endangered animals.

[PASS OUT CHARACTER CARDS FOR STUDENTS TO FILL OUT]

Due to the urgency of the UN call to action, you will hone your skills on the job, soon becoming experts at organizing and searching international data for a specific, targeted criminal. That data is in the form of a large pile of randomized data cards, which you must sort by categories such as the type of animal (elephant, rhinoceros, tiger, and shark), color (red or black, standing for Asia or Africa), Poacher or Seller, the number of illegal goods in possession, and so on.

You will do this by following rules issued by the global Track and Rescue Animal Center, or “TRAC,” in the form of Action Cards. TRAC warns you to be mindful of how you organize data cards because, after two rounds of training, each of you will received a unique Target Card. This card describes a specific Poacher or Seller that you must isolate from the international data pool, by using your Actions Cards wisely. Remember: Time is of the essence! The goal is to catch all the targets, but if you isolate your criminal first, you will be rewarded for your skill.

TRAC also advises that some Action Cards are more helpful later in the process; others are better followed earlier. As a TRAC official, I will demonstrate how you can use Action Cards to sort the data cards and eventually catch your target. (PAUSE to demonstrate)

Agents, are you ready? Let’s strategize, organize that data, and catch some wildlife criminals!

**Just before the last round:**

Attention, all agents! [YOUR NAME] here again, from TRAC, with some astounding news. A billionaire named Tara “Tiger” Shepherd has heard the United Nations call to action and is offering a substantial cash prize—one million dollars!—to the first agent within each patrol to
isolate and catch a wildlife criminal. She is also offering one million dollars to the first patrol to capture ALL of their targeted criminals.
STORY CONTEXT: WILDLIFE PATROL!

The generic “villains” from the abstract version are illegal wildlife Poachers and Sellers (traffickers) in this version.

Players are individual agents skilled at catching these villains. Each player receives a random case—a specific villain to target—and competes to solve her case first. To solve a case, a player must isolate their Target (card) from the international data pool (the rest of the cards).

A custom Action Card deck is a reworded version of the abstract Action Cards.
https://docs.google.com/document/d/1IUccOWtpKgg4RCHO-Jy_0XWbEU1_ZhaY5-Tf_JOO1g4/edit?usp=sharing

A custom data card deck holds basic information—the data to be sorted, searched, and singled out—but no other narrative.
https://docs.google.com/document/d/1OzwDrR5D_j9XnDCjYYzHEFitSeUFxy9aXQSLIzksmNA/edit?usp=sharing

CUSTOM CARD DECK

<table>
<thead>
<tr>
<th>Playing Card Category</th>
<th>Equivalent Story Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Red, Black</td>
<td>Asia, Africa</td>
</tr>
<tr>
<td>4 suits (two red, two black)</td>
<td>4 animal goods, 2 from Asia (shark fins, tiger pelts) and 2 from Africa (ivory elephant tusks, rhino horns)</td>
</tr>
<tr>
<td>Face cards (J, Q, K)</td>
<td>Sellers. They have higher value #'s (11, 12, 13) because they have more goods in their possession.</td>
</tr>
<tr>
<td>Pip cards (A, 2-10)</td>
<td>Poachers—the ruthless people killing the animals. The lower numbers on these cards (2, 3, 4, etc.) reflect the # of goods in their possession.</td>
</tr>
</tbody>
</table>

EXAMPLE 1

7 of diamonds is the equivalent of:

A POACHER in Asia, who has snagged 7 tiger pelts.
On the back, in narrative story form, we could give the poacher a villainous name/ID and a description of the crimes he/she committed, last known whereabouts, weapons in possession, that sort of thing.

EXAMPLE 2
Queen of spades is the equivalent of:
A SELLER in Africa, who is selling 12 rhino horns on the black market.

CARD DOCUMENT LINK:
https://docs.google.com/document/d/1OzwDrR5D_j9XnDCjYYzHEFitSeUFxy9aXQSL1zksmnA/edit#heading=h.gjdgx

STORY NARRATIVE: TRACKDOWN! The Global Quest to Save Wildlife

Introduction: The facilitator introduction above has been modified to introduce the story-game in a more narrative fashion.

CHARACTER CARDS (for role-playing)

Kids take a moment to fill these out as part of their role-playing.
TRAC Agent Personnel File

NAME: AGENT ____________________

Nationality: ____________________

Experience Level: NEW RECRUIT

Special Skill: Organizing and Searching Data (entry level)

Goal: Quickly isolate a specific target criminal from randomized data.

Agent’s stated reason for joining the wildlife patrol:

__________________________________________

Other Special Skills or Talents:
TARGET STORY CARDS (for story narrative mode)

The target cards for the narrative have complementary story cards (omitted from the context version). Players can read these silently as soon as they draw their target card—it’s their “case file”—and then the winner reads aloud his/her card as soon as she captures a criminal. They are loosely based on true events and facts but with fictional names and places.

TIGER POACHER STORY CARDS

The National Wildlife Property Repository on the outskirts of Denver, Colorado, houses 1.5 million items confiscated as illegal goods.

Case File: Tiger Poacher
POACHER’S NAME: Boris Yankowitz
The rare Amur (Siberian) tiger is native to Russia, where only about 450 of the big cats remain. Their even rarer cousins, Amur leopards, are on the brink of extinction, with 35 individuals left on the planet. Mr. Yankowitz is a small-time poacher, with only one known kill, but he has boasted of becoming a kingpin. Agents are urged to find and stop him, NOW!

Case File: Tiger Poacher
POACHER’S NAME: Ivanka Novaskaya
NATIONALITY: Russian
AGE: 34

In 2012, Russia increased the fine for poaching rare Amur (Siberian) tigers from 2000 rubles ($50) to to 575,000 rubles ($20,000). Yet a single pelt can command far more than that on the international market. Though relatively new on the scene, Ms. Novaskaya has ties to sellers in China, Japan, and Korea. She must be stopped, NOW!

Case File: Tiger Poacher
POACHER’S NAME: Chingis
NATIONALITY: Mongolian
AGE: 44

Chingis stood trial for poaching a female Amur (Siberian) tiger in Russia. He claimed that he shot the tiger in self-defense but forensic evidence proved otherwise. The tiger’s wounds indicated that she had been ensnared in a trap for a period of time, perhaps days, before meeting a violent end to her life. Though convicted, Chingis escaped custody and is still at large.

Case File: Tiger Poacher
POACHER’S NAME: Laksha Jadhav
NATIONALITY: Indian
AGE: 24
Ms. Jadhav is the leader of a ring of Bengal tiger poachers, long sought after by wildlife patrol agents in India. In the latest incident, one of her poachers turned himself into authorities with severe wounds, the result of a tiger attack. After disclosing the location of the attack, agents found a male tiger, age 4 to 5 years old, who had died of a gunshot wound and was missing the paws and head.

**TIGER SELLER STORY CARDS**

**Case File: Tiger Seller**
SELLER’S NAME: Yuko Kameka  
NATIONALITY: Japanese  
AGE: 33

A world famous chef, Ms. Kameka, is known for serving exotic dishes. A video tape surfaced of a secret meal for extremely wealthy guests that included tiger meat and tiger bone soup. An investigation sourced the illegal meat to a supply chain of poached tigers from India, Nepal, Burma, Laos, and Vietnam.

**Case File: Tiger Seller**
SELLER’S NAME: Li Soon  
NATIONALITY: Chinese  
AGE: 56

A shop owner in Hong Kong, Ms. Li sells medicines made of tiger bone (thought to treat ulcers, arthritis, and typhoid), tiger eyes (thought to fight malaria and epilepsy), and other parts. She exports whole pelts to Japan, Taiwan, and England. China’s tigers are extinct. Investigators continue to search for the source of Ms. Li’s tiger parts and pelts.

**SHARK POACHER STORY CARDS**
Case File: Shark Poacher

POACHER’S NAME: Rodney Redmond
NATIONALITY: Australian
AGE: 26

Mr. Redmond practices “shark finning,” which means slicing off the dorsal (back) fin of a shark and tossing overboard the rest of the still-living body to die slowly of suffocation or blood loss. Shark sellers purchase the fins for $500 per pound to sell to China, where shark fin soup is regarded as a symbol of status and power and sold in luxury restaurants and hotels.

Case File: Shark Poacher

POACHER’S NAME: Ming Lee Johnson
NATIONALITY: American
AGE: 29

Ms. Johnson’s boat was stopped and searched by Indonesian authorities in a wildlife zone. They confiscated illegally fished sharks, manta rays, and sea cucumbers worth $160,000 in the Asian market. With no resources to arrest or hold the suspects, the patrol allowed Ms. Johnson and her crew to go free.

Case File: Shark Poacher

POACHER’S NAME: Liu Xiang
Though young in years, Liu Xiang, is an experienced shark fisher who inherited his father’s boat and shark poaching trade. His native Taiwan ranks in the top five countries for the shark fin trade, along with China, Singapore, Malaysia, and Korea.

Case File: Shark Poacher
POACHER’S NAME: Owen Henderson
NATIONALITY: American
AGE: 18

The U.S. Fish and Wildlife Service reports a surge in the poaching of shark pups off the coast of southern California. Owen Henderson and other amateur fishermen treat the baby sharks as trophies and sell them on the black market. Scientists report that populations of great white sharks and leopard sharks have been reduced by the illegal practice.

SHARK SELLER STORY CARDS

Case File: Shark Seller
SELLER’S NAME: Huang Yao
NATIONALITY: Chinese
AGE: 78

Humans slaughter about 100 million sharks per year, mainly for the fins, which are turned into a luxury soup in Asian cultures. Huang Yao, based on Hong Kong, is a multi-millionaire kingpin in the worldwide shark fin trade. His wealth has allowed him to expand his empire to Asian communities around the world in major cities such as Toronto, London, and New York.

Case File: Shark Seller
SELLER’S NAME: Juan Gonzalez
NATIONALITY: Ecuadorian
AGE: 43

A fishing boat with 30 crew was spotted operating illegally in the Galapagos Marine Reserve. On inspection, the vessel’s holds were filled with 286 thresher sharks, 22 blue sharks, 40 Galapagos sharks, 6 hammerhead sharks; 2 tiger sharks, and 1 mako shark. The captain and crew were arrested for poaching and, in exchange for a reduced sentence, disclosed the name of their
trafficker. The would-be seller, Mr. Juan Gonzalez, was last seen in Hong Kong, a hotbed of the shark fin trade.

ELEPHANT POACHER STORY CARDS

Case File: Elephant Poacher
POACHER’S NAMES: Unknown
NATIONALITY: Chadian (presumed)
AGES: Unknown

Poaching in Zakouma park, Chad, was one so widespread that stressed out elephants stopped breeding. A security crackdown stopped the illegal practice entirely in 2012; the elephant population jumped by 40 calves in three years. In August 2015, a pilot spotted two poachers on horses near a dead female elephant and two orphaned calves, but the killers got away.

Case File: Elephant Poacher
POACHER’S NAME: Ndiva Abaga
NATIONALITY: Cameroonian
AGE: 25

In 2012, a gang of poachers used grenades and automatic weapons to slaughter 300 elephants in Cameroon’s Bouba Ndjidah National Park. They left the carcasses and took only the ivory tusks, worth millions on the black market. Anti-poaching squads are still hunting down individuals involved in the slaughter, including Ndiva Abaga.

Case File: Elephant Poacher
POACHER’S NAME: Ian Wilson
NATIONALITY: British
AGE: 47

Mr. Wilson is a big-game hunter who, working with a partner, illegally stalked a large male elephant in a protected area of Zimbabwe. The elephant charged and trampled the partner to death. Mr. Wilson escaped with his life, after shooting and mortally wounding the bull. He has since posted trophy pictures of other illegal elephant hunts online. Public outcry has forced him into hiding.

Case File: Elephant Poacher
POACHER’S NAME: Sifuni Lugongo
NATIONALITY: Tanzanian
AGE: 32

Tanzania’s elephant population is one of the hardest hit by illegal poaching, with much of the illegal ivory smuggled to the Philippines. Working in the dead of night, a special task force surrounded and surprised a group of about 90 sleeping poachers and arrested them. Mr. Lugongo is one of three suspects who escaped.

ELEPHANT SELLER STORY CARDS

Case File: Elephant Seller
SELLER’S NAME: Jacinta Ndolo
NATIONALITY: Kenya
Age: 53
In the last three years, poachers have killed more than 100,000 African elephants, reducing the population in central Africa by two-thirds. About 70 percent of the ivory tusks end up in China, where carvers turn them into luxury goods for sale. Ms. Ndolo operates one of the largest underground smuggling trades in Nairobi, the Kenyan capital.

**Case File: Elephant Seller**

**SELLER’S NAME:** Zhao Lin  
**NATIONALITY:** Chinese  
**AGE:** 27

At Zurich airport in Switzerland, custom agents seized three suitcases of illegal elephant ivory, which had been chopped up to fit inside the bags. The ivory had been destined for Beijing, China. Two of the traffickers were arrested and are facing fines and other penalties. The third, Zhao Lin, is at large.

**RHINO POACHER STORY CARDS**

**Case File: Rhino Poacher**

**POACHER’S NAME:** Bernard Molena  
**NATIONALITY:** South African  
**AGE:** 31
Mr. Molena operates a poaching ring in Kruger National Park, the protected home of southern white rhinos, a highly endangered species. The park has seen a dramatic rise in rhino deaths, from 13 poached in 2007 to more than 750 in 2015.

**Case File: Rhino Poacher**

**POACHER’S NAME:** Cai Tran  
**NATIONALITY:** Vietnamese  
**AGE:** 25

In 2015, the World Wildlife Foundation announced that rhinos are extinct in Vietnam, the last Javan rhino having been poached for its horn. Ms. Tran, a suspect in the killing, has fled the country. Officials believe she is in central Africa, where she may be establishing a new rhino poaching operation.

**Case File: Rhino Poacher**

**POACHER’S NAME:** Marnus Spencer  
**NATIONALITY:** South African  
**AGE:** 44

Mr. Spencer has been a safari operator in Kariega Game Reserve for 20 years, leading tourists into the bush to photograph wildlife. As a side business, he is suspected of leading wealthy hunters on illegal rhinoceros hunts, luring protected park rhinos into the open to be shot as trophies. He charged $50,000 per animal head by some reports.

**Case File: Rhino Poacher**

**POACHER’S NAME:** Hugh Baso  
**NATIONALITY:** South African  
**AGE:** 20

A male rhino was found staggering around severely maimed, his horn chopped off with a panga (large knife) blow. Veterinarians determined that the wound would be fatal and opted to tranquilize and euthanize the animal. DNA evidence at the scene matched that of Mr. Rasmussen, who has been arrested twice for poaching in the past but not convicted.

**RHINO SELLER STORY CARDS**

**Case File: Rhino Seller**

**SELLER’S NAME:** Phan Van Doc
NATIONALITY: Vietnam  
AGE: 68  

Vietnam is one of biggest importers of rhino horns poached in South Africa and other African nations. Phan Van Doc sells and exports both horns and the powdered medicines made from them. Wildlife trafficking agents estimate that a single rhinoceros horn can command more than $30,000 per pound.  

Case File: Rhino Seller  
SELLER’S NAMES: Chanda and Thandi Kalaba  
NATIONALITY: Zambian  
AGES: 45, 28  

Zambia’s black rhino population was poached to extinction in 1998, but animals were reintroduced in 2003 to North Luangwa National Park. In a crackdown to protect the fragile population, undercover police posed as buyers of horns. They infiltrated a smuggling ring led by the Kalabas, a husband and wife team, that stretched across several southern and central African countries.