There are two species of pangolin native to Vietnam, the Chinese pangolin (*Manis pentadactyla*) and the Sunda pangolin (*Manis javanica*). The Chinese pangolin inhabits the northern regions of the country, whereas the Sunda pangolin is found in the south. Both of these species are listed as endangered on the IUCN Red List, with wild populations suspected of undergoing sharp declines due to hunting and trade.

Pangolins are listed under Group 2B of Vietnam’s wildlife protection law, Decree 32 of 2006 prohibiting hunting and trade of pangolins without a legal permit. Both species of pangolins are also listed under Appendix II of CITES regulating trade across international borders.

A brief analysis of the pangolin trade was conducted by ENV in 2011 reviewing cases documented on ENV’s Wildlife Crime Database over the past six years (since January 2005). The purpose of the analysis was to assess the volume of pangolin trade as documented by ENV over this period, and provide reliable information on the average weight of a pangolin in trade so that quantities of animals could be more accurately determined from gross-weight seizures.

Since 2005 the ENV has recorded 159 cases involving smuggling and trade of pangolins, spanning 30 of Vietnam’s 64 provinces. These figures exclude consumer trade cases such as advertising and selling on pangolins and pangolin products at consumer establishments.

Smuggling cases involving shipments seized during transport account for 118 of the 159 pangolin trade cases documented. The remaining 41 cases involved seizures of pangolins at fixed locations such as warehouses or the homes of traders, usually in smaller quantities.

From the data collected from the smuggling cases with a known number of individual pangolins, and a known collective weight (n=60 cases or 2141 pangolins of known weight), it can be determined that the average weight of a pangolin in trade is 4.0085kg.

Using this average, both the quantity and weight for all other cases for which either weight or quantity is unknown can be estimated, except in cases involving pangolin scales for which the number of animals cannot be determined using this average.

Based on an estimated weight of 4.0085 kg per pangolin the total number of animals confiscated in cases documented by ENV amounts to 3,385, weighing 14.06 tons. Given that authorities are believed to interdict only a small fraction of the total pangolin trade, the total volume of pangolins traded in Vietnam during this period is likely to be considerably higher.

Seizures from the homes and warehouses used as staging or storage areas by traders for which either weight or quantity of pangolins were known accounted for 424 animals, weighing a total of 1,773 tons.

Pangolin trade

In Vietnam, pangolins are infrequently found on the menu of restaurants serving wildlife dishes or consumed in wine (served from jars with whole pangolins soaking in wine). Pangolin scales are also sold in some traditional medicine shops. ENV has documented a total of 178 cases since January 2005.
involving advertising or sale of pangolins or products made from pangolins at consumer establishments such as restaurants and medicine shops.

Based on the findings from investigations of major trade seizures by law enforcement agencies in Vietnam, ENV has concluded that most pangolins seized by authorities are of foreign origin, smuggled by land through the border gates from Laos into Vietnam and onward to the northern border and into China.

It is further suggested that the pangolin trade destined for Chinese markets may originate as far away as Indonesia and Malaysia and move up overland through Thailand and transit through Laos and Vietnam to China.

Major border areas noted in case investigations include Cau Treo in Ha Tinh province where a major pangolin trade network is suspected to operate, Lao Bao border crossing in Quang Tri, and possibly additional crossings in Quang Binh, Nghe An, and Thanh Hoa, based on reports informants and law enforcement.

Pangolin trade cases were reported in 30 of 64 provinces. North central and northern provinces had the highest number of documented seizures of pangolins with, Thanh Hoa, followed by Nghe An province, Ha Tinh, Hanoi, and Quang Ninh, having the highest number of documented seizures. These numbers support our understanding that the bulk the pangolin trade enters Vietnam in the north central region and moves northward to China. However, could contribute to the higher percentage of cases in the northern such as more effective interdiction efforts by enforcement agencies or more transparent reporting of enforcement actions. Seizures in southern provinces were notably smaller, involving only a small number of pangolins with a few exceptions, suggesting that pangolins in trade may be locally sourced rather than smuggled over the border from Cambodia or Thailand, though at least one seizure in Tay Ninh of 17 pangolins may have been sourced from Cambodia.

Pangolins are still hunted in Vietnam with cases and survey information supporting past and present targeting of pangolins in major parks and nature reserves through the central and southern region of Vietnam. However, based on reports from hunters in the central region, pangolins are considered rare in comparison with the past.

We suspect that most pangolins sold at consumer establishments in Vietnam are sourced within Vietnam, animals that died in transit, or were auctioned off by authorities to local buyers. The bulk the pangolin trade appears to be still heading for Chinese markets in 2011.

One additional important aspect of the illegal trade is the Hai Phong and Quang Ninh sea link to China. Vietnam’s largest pangolin seizures have been in the ports of Hai Phong and Quang Ninh, arriving in containers from Indonesia.

Since 2005, a total of more than 37 tons of pangolins and scales have been seized by Customs agents in five separate incidents. As in the case of major ivory shipments seized in the same ports, investigators in many cases believe that the consignee is often a company specializing in transit cargo, and hired to move the shipment by truck up to the Chinese border.

Obstacles faced in confronting the pangolin trade in Vietnam
- Pangolins are ranked relatively low in terms of perceived importance as a species of concern
- There are no practical solutions such as placement at rescue centers or zoos for dealing with quantities of confiscated pangolins when they are seized
- As a relatively high-value species, pangolins are usually auctioned off by authorities after they are seized, putting them back into the trade
- Pangolins are protected under Group 2B of Decree 32, but species listed in this category may be commercially traded with a permit from local authorities.
Figure 1: Map of pangolin seizures and suspected trade routes by province

Quang Ninh – 10
Hanoi – 7
Bac Ninh – 1
Hai Duong – 4
Hai Phong – 11
Ha Nam – 3
Thai Binh – 3
Ninh Binh – 7
Thanh Hoa – 23
Nghe An – 13
Ha Tinh – 11
Quang Binh – 3
Quang Tri – 4
Thua Thien Hue – 1
Da Nang – 1
Quang Nam – 2
Kon Tum – 3
Binh Dinh –
Phu Yen – 3
Dak Lak – 2
Binh Phuoc – 1
Tay Ninh – 1
Binh Thuan – 1
Ho Chi Minh – 3

Known pangolin entry point
Suspected pangolin entry point
Figure 2. Graph showing the numbers of pangolin wildlife crime cases January 2005 through March 2011

Table 1. Showing the number of pangolin seizures and trade operation cases January 2005 through March 2011

<table>
<thead>
<tr>
<th></th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>In Total (case)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Smuggling</strong></td>
<td>13</td>
<td>17</td>
<td>27</td>
<td>23</td>
<td>20</td>
<td>15</td>
<td>3</td>
<td>118</td>
</tr>
<tr>
<td><strong>Trade Operations</strong></td>
<td>2</td>
<td>3</td>
<td>7</td>
<td>5</td>
<td>8</td>
<td>16</td>
<td>0</td>
<td>41</td>
</tr>
</tbody>
</table>

Smuggling: Shipments seized in transit
Trade operations: Fixed sites where animals are stored or staged ad generally are connected to a specific subject