

Appendix B: Term Classification and Conversion Rates

Term	Units	Conversion (how many units are equivalent to one pangolin?)	Rationale
bodies	number of specimens	1	
	(No unit given)	1	
carvings	(No unit given)	1	Will assume that 1 pangolin is killed per carving.
claws	(No unit given)	1	Will assume that 1 pangolin is killed per set of claws.
derivatives	kg	33 (gigantea) 13 (crassicaudata) 12 (temminckii) 4.9 (javanica) 3.6 (pentadactyla) 2.7 (tetradactyla) 2.1 (culionensis) 1.5 (tricuspis)	Based on average body weight of an adult of each species (David Shepherd Wildlife Foundation, 2024), (Helmsworth, n.d.).
	g	33,000 (gigantea) 13,000 (crassicaudata) 12,000 (temminckii) 4,900 (javanica) 3,600 (pentadactyla) 2,700 (tetradactyla) 2,100 (culionensis) 1,500 (tricuspis)	Based on average body weight of an adult of each species (David Shepherd Wildlife Foundation, 2024), (Helmsworth, n.d.).
	cartons	20kg per carton	Based on weight of a standard bulk carton of produce (Stemilt, 2010).
	boxes	20kg per box	Assuming same as carton.
	(No unit given)	Same as kg.	Assuming this is measured in kg.
feet	(No unit given)	4	A pangolin has 4 feet (usually).

fur product (small)	(No unit given)	2	Will assume that one pangolin skin can produce 3 small items.
leather	pieces	1	Assume that 1 piece of leather comes from 1 pangolin.
leather items	(No unit given)	1	Assume that 1 leather item comes from 1 pangolin.
leather products (large)	(No unit given)	1	Assume again that 1 large leather product comes from 1 pangolin.
leather products (small)	pairs	1	Assume that 1 pair of small leather products comes from 1 pangolin.
	(No unit given)	2	Will assume that one pangolin skin can produce 3 small items, as with 'fur product (small)' above.
live	Number of specimens	1	Refers to whole specimens.
	(No unit given)	1	1 live pangolin is clearly equivalent to 1 pangolin.
meat	kg	30% of bodyweight, by species.	Big game animals seem to yield between 30% to 60% of their bodyweight in meat (Kennedy, 2023). I will assume that pangolins yield 30% as a significant proportion of their weight is scales (Conciatore, 2019).
	g	30% of bodyweight, by species.	Based on average body weight of an adult of each species (David Shepherd Wildlife Foundation, 2024), (Helmsworth, n.d.), and a 30% meat yield (Kennedy, 2023).
	Number of specimens	1	Clearly, 1 specimen is equivalent to 1 whole pangolin.
	(No unit given)	30% of bodyweight, by species.	Will assume that meat is measured in kg unless otherwise specified.
medicine	g	33,000 (gigantea) 13,000 (crassicaudata) 12,000 (temminckii) 4,900 (javanica) 3,600 (pentadactyla) 2,700 (tetradactyla) 2,100 (culionensis) 1,500 (tricuspis)	Based on average body weight of an adult of each species (David Shepherd Wildlife Foundation, 2024), (Helmsworth, n.d.).

	ml	33,000 (gigantea) 13,000 (crassicaudata) 12,000 (temminckii) 4,900 (javanica) 3,600 (pentadactyla) 2,700 (tetradactyla) 2,100 (culionensis) 1,500 (tricuspis)	Will assume that 1ml is equivalent to 1g.
	Number of specimens	1	
	(No unit given)	1	Will assume that, unless otherwise specified, medicine is measured by the number of pangolins traded.
powder	g	33,000 (gigantea) 13,000 (crassicaudata) 12,000 (temminckii) 4,900 (javanica) 3,600 (pentadactyla) 2,700 (tetradactyla) 2,100 (culionensis) 1,500 (tricuspis)	Based on average body weight of an adult of each species (David Shepherd Wildlife Foundation, 2024), (Helmsworth, n.d.).
scales	kg	20% of bodyweight, by species.	Pangolin scales make up around 20% of their bodyweight (Conciatore, 2019).
	g	20% of bodyweight, by species.	Pangolin scales make up around 20% of their bodyweight (Conciatore, 2019).
	Number of specimens	1	
	(No unit given)	20% of bodyweight, by species.	Will assume, unless otherwise specified, that pangolin scales are recorded in kg.
shoes	(No unit given)	1	Will assume that 1 pangolin can produce 1 pair of shoes.
skeletons	(No unit given)	1	Will assume that 1 skeleton comes from 1 pangolin.
skin pieces	m	1.2	Pangolins can range from about 1.1m (45 inches) to 1.4m (4.5 feet) (National Geographic, n.d.). Will assume that 1 pangolin is equivalent to 1.2m of skin.
	cartons	20kg per carton	Based on weight of a standard bulk carton of produce (Stemilt, 2010).

	kg	20% of bodyweight, by species.	Pangolin scales make up around 20% of their bodyweight (Conciatore, 2019).
	(No unit given)	20% of bodyweight, by species.	Will assume, unless otherwise stated, that skin pieces are measured in kg.
skins	m	1.2	Will assume that 1 pangolin is equivalent to 1.2m of skin (National Geographic, n.d.).
	cm	120	Same as for m.
	kg	20% of bodyweight, by species.	Pangolin scales make up around 20% of their bodyweight (Conciatore, 2019).
	m2	1.2	Same as for m.
	(No unit given)	1	Will assume, unless otherwise specified, that 1 skin comes from 1 pangolin.
skulls	(No unit given)	1	1 pangolin can produce only 1 skull.
specimens	g	33,000 (gigantea) 13,000 (crassicaudata) 12,000 (temminckii) 4,900 (javanica) 3,600 (pentadactyla) 2,700 (tetradactyla) 2,100 (culionensis) 1,500 (tricuspis)	Based on average body weight of an adult of each species (David Shepherd Wildlife Foundation, 2024), (Helmsworth, n.d.).
	flasks	1	Assuming that 1 flask contains 1 preserved pangolin.
	ml	33,000 (gigantea) 13,000 (crassicaudata) 12,000 (temminckii) 4,900 (javanica) 3,600 (pentadactyla) 2,700 (tetradactyla) 2,100 (culionensis) 1,500 (tricuspis)	Will assume that 1ml is equivalent to 1g.

	kg	33 (gigantea) 13 (crassicaudata) 12 (temminckii) 4.9 (javanica) 3.6 (pentadactyla) 2.7 (tetradactyla) 2.1 (culionensis) 1.5 (tricuspis)	Based on average body weight of an adult of each species (David Shepherd Wildlife Foundation, 2024), (Helmsworth, n.d.).
	Number of specimens	1	1 'specimen' equates to 1 whole pangolin.
	(No unit given)	1	Will assume that, unless otherwise specified, 1 'specimen' equates to 1 whole pangolin.
tails	(No unit given)	1	1 pangolin can only produce 1 tail.
trophies	(No unit given)	1	Will assume that 1 trophy is made of 1 pangolin.
unspecified	kg	33 (gigantea) 13 (crassicaudata) 12 (temminckii) 4.9 (javanica) 3.6 (pentadactyla) 2.7 (tetradactyla) 2.1 (culionensis) 1.5 (tricuspis)	Based on average body weight of an adult of each species (David Shepherd Wildlife Foundation, 2024), (Helmsworth, n.d.).
	g	33,000 (gigantea) 13,000 (crassicaudata) 12,000 (temminckii) 4,900 (javanica) 3,600 (pentadactyla) 2,700 (tetradactyla) 2,100 (culionensis) 1,500 (tricuspis)	Based on average body weight of an adult of each species (David Shepherd Wildlife Foundation, 2024), (Helmsworth, n.d.).
	Number of specimens	1	1 specimen equates to 1 whole pangolin.
	(No unit given)	1	Will assume that, unless otherwise specified, 1 unspecified entry equates to 1 whole pangolin.

Bibliography

Conciatore, J. (2019, October 15). *Up to 2.7 million pangolins are poached every year for scales and meat*. Retrieved from African Wildlife Foundation: <https://www.awf.org/blog/27-million-pangolins-are-poached-every-year-scales-and-meat>

David Shepherd Wildlife Foundation. (2024, July 5). *Pangolin Facts*. Retrieved from David Shepherd Wildlife Foundation: <https://davidsshepherd.org/species/pangolins/facts/>

Helmworth, A. (n.d.). *Manis culionensis, Philippine pangolin*. Retrieved from Animal Diversity Web: https://animaldiversity.org/accounts/Manis_culionensis/

Kennedy, J. (2023, August 21). *Meat Yield from Big Game Animals (With Stats for all Game!)*. Retrieved from Backfire: <https://backfire.tv/meat-yield-from-big-game-animals-with-stats-for-all-game/>

National Geographic. (n.d.). *Pangolins*. Retrieved from National Geographic: <https://www.nationalgeographic.com/animals/mammals/facts/pangolins>

Stemilt. (2010). *Common Pear Carton Specifications*. Retrieved from https://www.stemilt.com/assets/pdfs/Cartons_Pears.pdf