**A systematic survey of the online trade in elephant ivory in Singapore before and after a domestic trade ban**

Hazelina H.T. Yeo, Sean J.W. Ng, Janelle S.R. Lee, Malcolm C.K. Soh, Anna M.S. Wong, Adrian H.B. Loo and Kenneth B.H. Er

Supplementary material is published as supplied by the authors. It is not checked for accuracy, copyedited, typeset or proofread. The responsibility for accuracy and file functionality remains with the authors.

Supplementary Table 1 Online platforms and search criteria/settings used for conducting the online search for listings of possible elephant ivory items for sale in Singapore.

|  |  |  |  |
| --- | --- | --- | --- |
| Site | Search criteria/settings | Company, city, country | Site URL |
| Adpost | Select the Singapore site on homepage Location: Singapore Search "key word" in "All Sections" | Adpost.com Classifieds, Spijk, The Netherlands | [adpost.com/sg](https://www.adpost.com/sg/) |
| Carousell | Select a category = All Categories "Best Match" to change to "Recent" | Carousell, Singapore | [carousell.sg](https://www.carousell.sg/) |
| Chutku Singapore | All Categories Enter city = Singapore | [Please provide company, city, country] | [chutku.sg](http://www.chutku.sg/) |
| eBay Singapore | Item Location: Singapore Only Sort by: Time: Newly Listed | eBay, San Jose, USA | [pages.ebay.com/sg/index.html](https://pages.ebay.com/sg/index.html) |
| Facebook Marketplace | Filters: Location: Singapore, Radius: within 60 km (default) Sort by: Recommended [does not have option for most recent] | Meta Platforms, Menlo Park, USA | [facebook.com/marketplace/singapore](https://www.facebook.com/marketplace/singapore/) |
| Gumtree | All Singapore Sort by: Most recent | Gumtree.com Limited, London, UK | [gumtree.com/.sg](https://www.gumtree.com/.sg) |
| Lazada | Location: Singapore Sort By: Best Match [does not have option for most recent] | Lazada, Singapore | [lazada.sg](https://www.lazada.sg/) |
| Locanto | Singapore | Yalwa, Wiesbaden, Germany | [singapore.locanto.sg](https://singapore.locanto.sg/) |
| Qoo10 | Country of Origin: ALL Shipping from: Singapore To: Singapore Sort by: Newly Listed | Qoo10, Singapore | [qoo10.sg](https://www.qoo10.sg/) |
| Shopee | Shipped from: Domestic Sort by: Latest | Shopee, Singapore | [shopee.sg](https://shopee.sg/) |

Supplementary Table 2 Description of variables for data capture.

|  |  |
| --- | --- |
| Variable | Description |
| item\_id | Unique item identifier generated in this format: pp-mmdd-ss-x; pp = site, mmdd = date of data extracted, ss = search term, x = serial number; e.g., ad-0604-cb-1 |
| date\_extracted | Date of data capture; format = DD/MM/YYYY |
| site | adpost/ carousell/ ebaysg/ chutku/ lazada/ facebook/ locanto/ shopee/ qoo10/ gumtree |
| search\_term | Available upon request to author |
| title | Title of listing |
| price\_lowerlimit | Price listed; lower limit of the price listed if price is listed in a range; unit = SGD |
| price\_upperlimit | Upper limit of the price listed; only filled if price listed is in a range; unit = SGD |
| item\_type | Manual categorisation; choose from drop-down list: **bird cage or accessories** =whole bird cage with ivory component, bird cage ornament or part, bird cage cup or bowl, etc. **jewellery** =necklace, pendant, medallion, bangle, bracelet made with or containing ivory, etc.; excludes netsuke **sculpture/figurine** = object for display or collection, may or may not be self-standing, typically carved, can be intricate or ornate **netsuke** = specific to object found under search term 'netsuke' **loose beads** = loose beads **musical instrument** = piano, guitar, violin, etc. with ivory component **furniture** = bed frame, table, chair, cabinetry, screen/divider, mirror, lamp, etc. with ivory component **kitchenware** = cutlery, crockery, teapot, kitchen tools etc. **stamp/seal** = stamp or seal **dagger** = dagger, knife, sword, etc., with ivory handle or ivory component **stationery** =pen, etc. **comb** =comb **raw ivory** =whole tusks or fragments of it, may or may not be polished **others** =all others |
| schreger\_line | Y/N/Uncertain; Y or N indicated if images show shreger lines with certainty; any doubt = indicate as Uncertain |
| username | Username / store name that the listing belongs to |
| date\_posted | Date that the listing was posted, if indicated; format = DD/MM/YYYY |
| age\_posted | When no date is available but there is a description or indication of the age of a particular listing, e.g., "A month ago", "More than a year ago", etc. |
| url | URL link to the webpage showing the product listing |
| image\_file | Y/N to indicate if image files are downloaded and available offline by web scraper |
| description | Description of product (only included for the 5 sites which have scripts for automated data extraction) |
| textual\_assessment | [for listings after 1 Sep 2021 effective date of domestic ivory ban only]  Manual categorisation; choose from dropdown list:  **explicitly ivory** = if “elephant ivory”, “ivory”, the elephant emoji or equivalent is explicitly specified in the title or description  **implied ivory** = if terms like “real”, “authentic”, “genuine” or equivalent is specified in the title or description to imply elephant ivory  **not ivory** = if a non-ivory material is explicitly specified in the title or description, e.g., cow bone, ox bone, mammoth, resin, ivory nut, fake ivory, not ivory etc.  **neutra**l = if there is no mention of material in the title or description |