

INDIAN STAR TORTOISES:

Shop sales fall as internet trade increases

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INTRODUCTION

The Indian Star Tortoise *Geochelone elegans* is a popular stalwart of the exotic pet trade in Malaysia, largely owing to its striking geometric markings. Although last assessed to be common throughout parts of its range in northwestern and southeastern India, eastern Pakistan and northern and eastern Sri Lanka (Das, 2002), populations were in decline due to illegal collection for the international pet trade as well as habitat loss (Choudhury *et al.*, 2000).

This paper reports on the successes of initiatives undertaken by TRAFFIC over the past decade following the launch of *Demand Driven: The Trade of Indian Star Tortoises Geochelone elegans in Peninsular Malaysia* (Shepherd *et al.*, 2004), which reported on the findings of surveys of pet and aquarium shops in the Greater Kuala Lumpur area undertaken in late 2003. The successes are demonstrated by pet and aquarium shop surveys in 2014 showing only a handful of Indian Star Tortoises for sale. Additionally, this paper reports on information relating to online trade in the species that was collected in 2014 and 2015. It also seeks to highlight two crucial conservation concerns that remain: the possibility that Indian Star Tortoises imported into Malaysia with permits declaring them to be captive-bred are actually wild-caught, and that, although the sale of Indian Star Tortoises in physical shops has fallen dramatically, the online trade is increasing.

BACKGROUND AND LEGISLATION

The Indian Star Tortoise is currently assessed by the IUCN Red List as being of Least Concern (Asian Turtle Trade Working Group, 2000) but this status needs updating. It has been listed in Appendix II of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) since 19 July 2000. Additionally, India has posted a suspension *CITES Notification No. 1999/39* that bans trade in wild Indian flora and fauna, including Indian Star Tortoises (CITES, 1999). The species is fully protected in India and Pakistan, from where no exports are allowed. Exports from Sri Lanka are allowed with permits but only for scientific research purposes.

In late 2003, TRAFFIC carried out a study of pet and aquarium outlets in Greater Kuala Lumpur to document the Indian Star Tortoise trade (Shepherd *et al.*, 2004). Following the release of the report, much has been done to raise the profile of the species and to ensure that illegal trade was reduced.

Recommendations by TRAFFIC to the Malaysian authorities focused on the role of Malaysia in the international Indian Star Tortoise trade (e.g. Anon., 2007; Lenin, 2007) and its inadequate wildlife trade laws. This was tied into a joint campaign with three other NGOs and supported by others in the conservation community calling for wildlife laws to be updated (WWF, 2008). After attracting media attention and collecting thousands of signatures for the petition, the NGOs were involved in a consultative process to see the new, improved laws passed.

In 2008 and 2010, the Malaysian Government introduced two new laws: the *International Trade of Endangered Species Act 2008* regulates the import, export and/or possession of CITES-listed species, including the Indian Star Tortoise, through a permit system. Offenders are liable to a fine of up to MYR100 000 (USD28 570) for each animal, part or derivative of a scheduled species, but not exceeding MYR1 million (USD285 700), imprisonment of up to seven years, or both. The fine for offences committed by a corporate body such as a registered business is up to MYR200 000 (USD57 140) not exceeding MYR2 million (USD571 400), and the director, manager and officer of the corporate body may be jointly charged in court.

The Indian Star Tortoise is also on the Protected list of the *Wildlife Conservation Act 2010*, meaning that any import, export, re-export, trade and/or possession requires a licence. The Act is applicable to Peninsular Malaysia and the federal territory of Labuan, and infringement can result in a fine of up to MYR100 000 (USD28 570) and/or imprisonment of up to three years. Under the *Wildlife Conservation (Commercial Captive Breeding) Regulations 2013*, which came into operation on 1 March 2013, commercial breeders are required to apply for permits from the Ministry of Natural Resources and Environment.

Important steps have been made based on the 2004 report to improve enforcement successes in Malaysia.

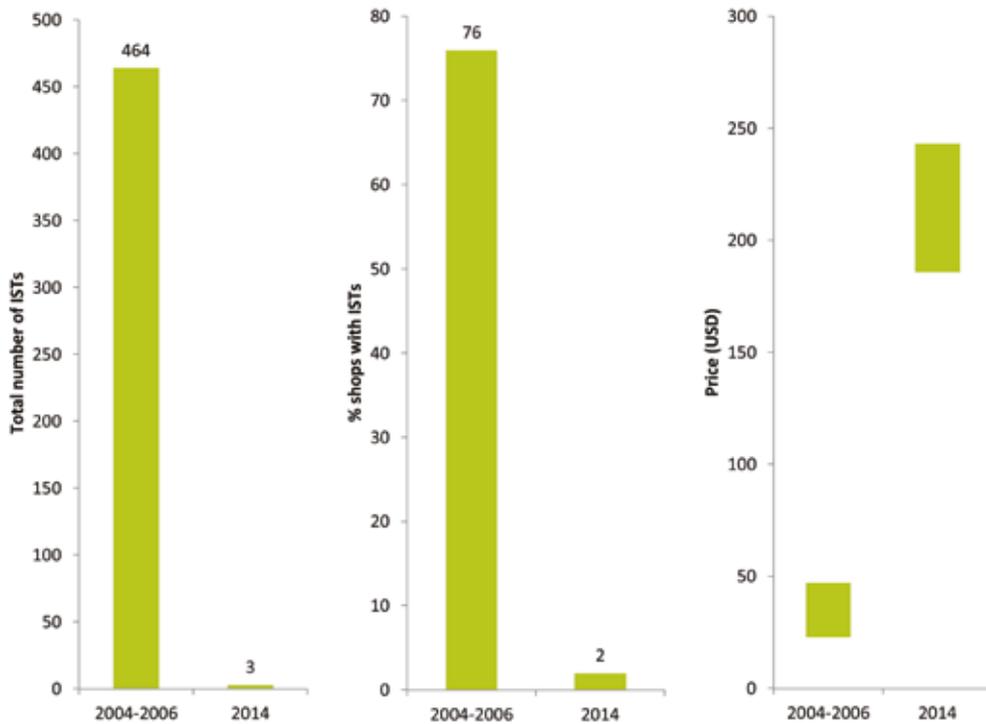


Fig. 1. Comparison of results between the survey in 2004–2006 and 2014, showing (a) the dramatic decrease in number of Indian Star Tortoises for sale; (b) percentage of shops surveyed; and (c) the increase in the price range.

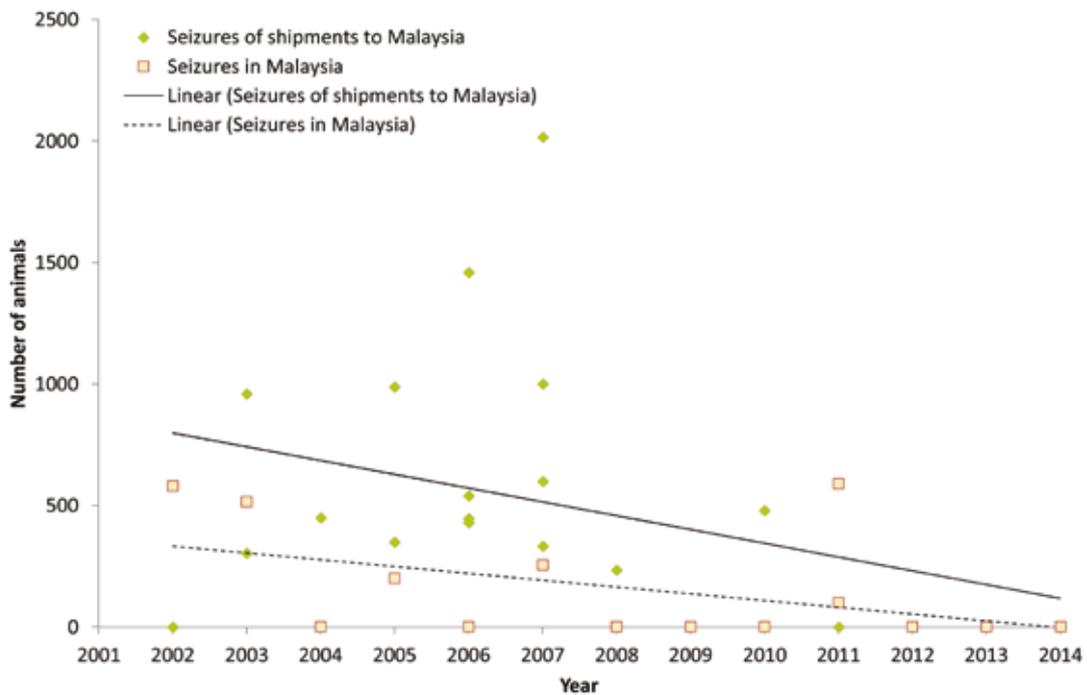


Fig. 2. Seizures of Indian Star Tortoises in Malaysia and purported to be destined for Malaysia, 2002–2014. Note that years where there were no seizures are depicted on the graph as “0 animals”.

Illegal trade in Indian Star Tortoises has been included as a case study in trainings for enforcement officials in Malaysia, conducted by TRAFFIC, for years after the launch of the report, and more than 400 copies of the report and over 100 CDs containing the report have been distributed to enforcement officers.

TRAFFIC also continued raising public awareness of the illegality of selling and keeping Indian Star Tortoises. Methods include working with the Malaysian media (e.g. Tan, 2007; Tan, 2008; Augustin, 2011), distributing car stickers featuring the Indian Star Tortoise and using the Indian Star Tortoise when promoting the Wildlife Crime Hotline run by the Malaysian Conservation Alliance for Tigers (MYCAT) through avenues ranging from community outreach programmes to publicity in local publications and social media. Members of the public are urged to look out for and report Indian Star Tortoises (and other protected species) being kept or traded illegally. MYCAT passes these reports on to the Malaysian wildlife authorities, who in turn take enforcement action.

A number of these articles were further circulated online in reptile hobbyist forums such as the Pets Wonderland subforum in Lowyat.net, a popular internet website in Malaysia covering a multitude of discussion topics. TRAFFIC was frequently mentioned in discussions on how the new laws would affect owners and buyers of Indian Star Tortoises (L.A. Shepherd, *in litt.*, 2 February 2015).

METHODS

Surveys were conducted in Greater Kuala Lumpur in 2004–2006 and 2014. In the first survey, 25 pet and aquarium shops selling freshwater turtles and tortoises were surveyed between 2004 and 2006, with some shops visited multiple times. A total of 94 visits were made. In the second survey, 85 shops, including some from the first survey, were visited once each between May and August 2014. Shops were selected by calling to ask if they sold tortoises and freshwater turtles, and all were visited except in instances where the shop was closed or could not be found. In addition to observation of tortoises in stock, conversations with shop owners and employees were held to gather information including the origin of their stock, retail prices, availability of new stock and recommendations for bringing tortoises out of the country. All observations of trade were reported to the Department of Wildlife and National Parks (DWNP) for further action.

For the online trade survey carried out between November 2014 and 16 February 2015, classified advertising sites and thematic websites based in Malaysia were selected using search terms likely to lead to websites selling turtles and tortoises including: tortoise(s), turtle(s), *kura kura*, *labi labi*, for sale, buy, sell, Malaysia and advertisement. A total of 17 websites as well as the social media site Facebook were searched for advertisements. Information collected was based on what was posted in the advertisements and was not verified with the seller; the locations of the sellers were all listed to be in Malaysia.

Prices are given in US dollars (USD), using an exchange rate of USD1=MYR3.50 (OANDA, December 2014).

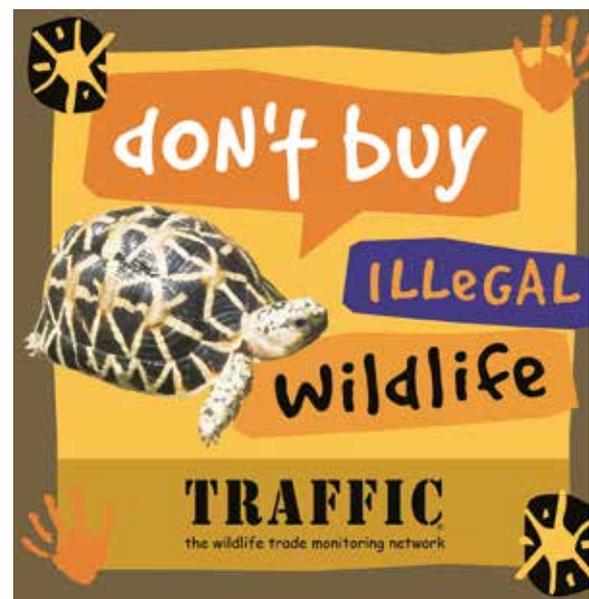
Information on Indian Star Tortoise seizures from 2002 to 2014 was collected from the seizures and prosecutions sections of the *TRAFFIC Bulletin*, news media and an earlier analysis by Babu and Stengel (2011). Information on imports of Indian Star Tortoises to Malaysia from 2000 to 2013 was obtained from the UNEP-WCMC CITES trade database (UNEP-WCMC, 2015).

RESULTS

In the first survey carried out between 2004 and 2006, at least 464 Indian Star Tortoises were observed on 64 out of a total of 94 visits to the shop sample. This averages out at five animals per visit, with 76% of the shops carrying Indian Star Tortoises (n=25). On one occasion, a shop had a large number of hatchlings, the total of which had to be estimated. Prices ranged from USD23 for a small hatchling to USD57 for a medium-sized animal (Fig. 1).

In the second survey carried out in 2014, of the 85 shops surveyed only three Indian Star Tortoises were recorded in two shops. One of the three animals was reportedly sold moments before the researcher spoke to shop staff. This works out at only 2% of the shops carrying Indian Star Tortoises—a dramatic decrease from a decade earlier. Prices ranged from USD186 to USD243, up to a 956% increase in prices compared to the 2004–2006 surveys (Fig. 1). Two more shops claimed to be out of stock of Indian Star Tortoises at the time of the survey.

The online surveys found that at least 1023 Indian Star Tortoises were offered for sale in 185 separate advertisements dating from September 2006 to February 2015. This averages out at 1.8 advertisements a month. Most advertisements were on Malaysian online classified advertisement sites such as Mudah.my, Adpost.com/my and GetitMalaysia.com (114 advertisements; 61%), as well as on Facebook (63 advertisements; 34%). At least 144 were advertised by what appeared to be businesses (78%).



A TRAFFIC car sticker raising awareness about illegal wildlife trade, featuring an Indian Star Tortoise.

Advertised prices ranged from USD2.20 to USD688.50 per animal, with the exception of one seller asking for USD3000 per animal. The median price was USD112.68. It should be noted that some of these advertisements could be fraudulent or speculative in cases where the trader has not yet obtained the animals for sale.

Six seizures of a total of 2239 Indian Star Tortoises were reported in Malaysia between 2002 and 2014. In addition, 15 more seizures in India and Bangladesh of 10 595 Indian Star Tortoises were purportedly destined for Malaysia (Fig. 2). There has been a downward trend in seizures of the species involving Malaysia, with none reported from 2012 to 2014 in Malaysia or of shipments destined for Malaysia. This coincides with a 2012 importation of individuals listed as captive bred from Jordan. It should be noted that the seizures data collected for this analysis are not exhaustive and many are from unofficially verified media reports. As such, they represent an unknown proportion of the total trade. Furthermore, as seizures also reflect enforcement or reporting efforts, this trend may not necessarily reflect a decrease in trade levels.

DISCUSSION

The data suggest that the availability of Indian Star Tortoises in physical pet and aquarium shops has dropped drastically over the past decade, but online trade is emerging as an issue of conservation concern. This could be attributed to new wildlife legislation coming into force, increased enforcement action taken against traders openly displaying Indian Star Tortoises and greater awareness amongst casual buyers regarding the legal and conservation status of the species. The far higher asking prices in the 2014 survey may reflect the reduced availability of Indian Star Tortoises and/or awareness of the illegality of international trade in the species. One retailer said that the tortoise for sale in his shop was from India (from where exports are illegal) and stated that specimens were hard to acquire. He also said that export permits were not necessary as specimens were easy to conceal in luggage, while another retailer said that permits could be obtained to keep the animals but not to export them. This indicates awareness by retailers that trade in Indian Star Tortoises is regulated, even though none said that the trade was illegal. In *ad hoc* observations between 2010 and 2013, many dealers told TRAFFIC staff that they no longer stock Indian Star Tortoises as it is illegal (C.R. Shepherd, *in litt.*, 30 January 2015). It is important to note that pet and aquarium shop surveys have focused on Greater Kuala Lumpur, and exclude other important commercial centres in Peninsular Malaysia such as Penang, Ipoh and Johor Bahru.

The reduced number of Indian Star Tortoises in pet and aquarium shops likely indicates increased enforcement efforts in Malaysia, and is a positive step forward in reducing trade—the lack of availability and increased prices reduces opportunistic buying and sends a message to the public that this species is not to be kept as a pet. However, the trade via social media, with direct contact with suppliers, and kept largely within closed circles of hobbyists is a concern.

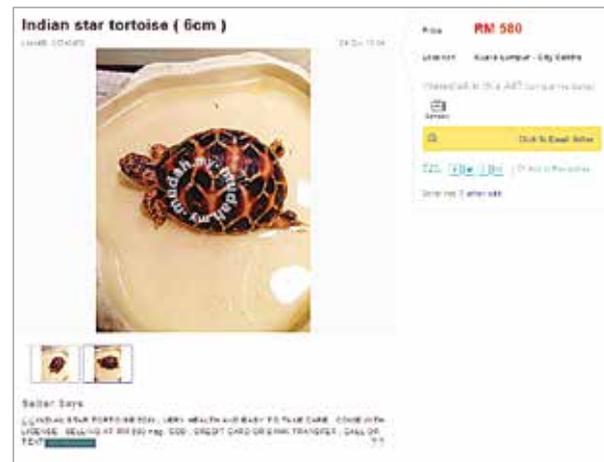


Fig. 3. Screen capture of an advertisement on Mudah.my, showing a hatchling being advertised by a business selling exotic pets.

Globally, huge volumes of wildlife are advertised over the internet (Wu, 2007; IFAW, 2014). Reptiles were found to be the second-most widely traded wildlife commodity after ivory in a recent study (IFAW, 2014). It is difficult to compare the numbers from online surveys to those undertaken at pet and aquarium shops due to the different survey methodology employed, but it is clear that large numbers of Indian Star Tortoises are being sold online, and increasingly so in recent years. Interestingly, plenty of the advertised animals are hatchlings, which are likely to be animals hatched in captivity as wild-caught animals tend to be older (Fig. 3). To the authors' knowledge, there are no registered breeding operations within Malaysia.

Imported animals accompanied by CITES permits stating that they were captive-bred from the exporting country are considered to be legitimate by DWNP. In 2014, at least two instances of Indian Star Tortoises being sold were reported to MYCAT's Wildlife Crime Hotline. DWNP investigated the reports and informed MYCAT that these animals were captive bred in Jordan and re-exported via Taiwan with the necessary documentation in 2013 (P.M. Wong, *in litt.*, 21 January 2015).

There were only six CITES trade records between 2000 and 2013 of Indian Star Tortoises imported by Malaysia (Fig. 4). Most of these were reportedly captive-bred or hatched in captivity, despite the species not being easy to breed in captivity on a commercial scale (Outhwaite *et al.*, 2014; Shepherd *et al.*, 2004). Analyses of CITES trade data for the species highlighted erratic patterns that raise concerns that the species is being laundered—illegally caught in range States and imported using export documents falsely claimed to have been issued by non-range States such as Kazakhstan and Jordan, where the animals are supposedly being bred (Outhwaite *et al.*, 2014; IUCN/SSC Tortoise & Freshwater Turtle Specialist Group, 2010). It is likely that Indian Star Tortoises imported into Malaysia with permits declaring them to be captive-bred are actually wild-caught.

Seventy-eight percent of the online advertisements were posted by businesses, and others may be affiliated to pet trade businesses despite not stating this. Many have retail space yet choose to advertise Indian Star Tortoises online: three of these shops were surveyed and no Indian Star Tortoises were seen. This suggests that shops selling protected species are shifting their operations online to avoid detection, as well as to tap into the market of buyers online. More must be done by classified advertisement websites to regulate posts, including those relating to protected wildlife. On Mudah.my, the rules stipulate that any animals traded must follow the *Wildlife Protection Act of Malaysia 1972*, the *Fisheries Act 1985* and the provisions set out under CITES (Mudah.my, 2015). However, neither Adpost.com nor GetitMalaysia.com refer to the sale of protected wildlife as pets in their rules or terms and conditions (Adpost.com, 2015; GetitMalaysia.com, 2015), making it possible for sellers to advertise online without flouting the websites' conditions. Classified advertisement websites are urged to include specific rules as Mudah.my has done. Social media is far more complicated to police, and with a sharp rise in advertisements for pet tortoises and freshwater turtles and tortoises being advertised in that arena, compared to other online platforms (Bouhuys and Van Scherpenzeel, 2015), it is clear that social media needs to be more closely monitored and regulated.

CONCLUSIONS

Since the commercial pet trade in Indian Star Tortoises was first identified as a problem in Malaysia (Shepherd *et al.*, 2004), significant strides have been taken towards reducing the scale of the trade. Advocacy, targeted lobbying and awareness-raising based on information

collected from research by TRAFFIC and others raised the profile of the species and the issue of illegal trade resulted in two new wildlife laws being passed in Malaysia that afford legal protection to Indian Star Tortoises and other species.

The 2014 market survey conclusively shows that there has been a drastic drop in the number of Indian Star Tortoises sold in shops. This reflects the effectiveness of new wildlife legislation, successful follow-up enforcement efforts and/or increased awareness of the general public regarding the illegality of the Indian Star Tortoise trade. The near-disappearance of the species from pet stores and aquaria greatly reduces availability to the general public, reducing walk-in "impulse" buys and the misconception that the Indian Star Tortoise is a common species that can be kept legally without a permit.

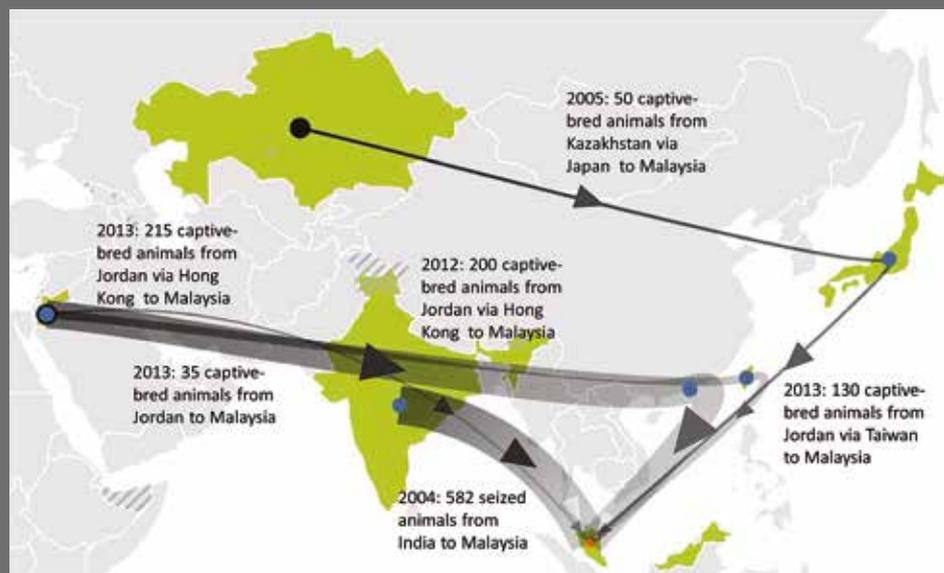
Even as we celebrate these successes, new challenges are arising. The threat of illegal trade to Indian Star Tortoises persists as the trade shifts online, where efforts must now be focused. This will create new challenges in monitoring and eliminating trade of the species, as it is particularly difficult to monitor online trade comprehensively and prove the legality of wildlife being advertised (IFAW, 2014). The possible laundering of Indian Star Tortoises declared to be captive-bred is another factor that requires attention in order to ensure that the trade in Indian Star Tortoises does not threaten populations in the wild.

ACKNOWLEDGEMENTS

Indraneil Das and Loretta Ann Shepherd are thanked for their review of the original manuscript.

Fig. 4. CITES trade records of Indian Star Tortoises *Geochelone elegans* imported by Malaysia, 2000–2013.

Sources: UNEP-WCMC (2015);
Map created using TradeMapper:
<https://trademapper.aptivate.org/>



The thickness of lines indicate the volume of trade; black dots indicate the country of origin, blue the exporting or re-exporting countries and orange (Malaysia) the importing country.

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