

The conservation status, legal protection and assessment of the trade in Straw-headed Bulbuls *Pycnonotus zeylanicus* in Singapore

INTRODUCTION

South-east Asia is regarded as one of the largest illegal wildlife trading centres in the world, with the trade of birds in the region considerable both in its diversity (an estimated 400 species) and volume (in the millions annually) (Nash, 1993; Koh *et al.*, 2013). Live bird markets in many countries in South-east Asia are huge in scale and value (Duckworth *et al.*, 2012; Koh *et al.*, 2013) largely as a result of the popularity of keeping songbirds and songbird singing contests in countries such as Thailand, Malaysia, Indonesia and Singapore (Nash, 1993; Jepson and Ladle, 2005; Shepherd, 2006; Kirichot *et al.*, 2014, Chng *et al.*, 2015). Additionally, rare and protected species may serve as a symbol of affluence, power or prestige (Lee, 2006). Bulbuls (Pycnonotidae) produce a broad range of complex and appealing vocalizations, making them amongst the most popular wild-caught birds for this trade (Kamtaeja *et al.*, 2012), with the Straw-headed Bulbul *Pycnonotus zeylanicus* the most sought after species in this family of birds on account of its renowned melodious song (Jepson and Ladle, 2005; Shepherd *et al.*, 2013).

Straw-headed Bulbuls are widely available in Indonesian bird markets, with many traders claiming that the birds originate from Sumatra and Kalimantan (Shepherd *et al.*, 2004; 2006; Chng *et al.*, 2015; Harris *et al.*, 2015; Chng and Eaton, 2016). Birds are chosen at a young age and “trained” for the purpose of competing (Kirichot *et al.*, 2014). In order to meet market demand, the species is being bred in some numbers by traders, leading to concern that the wild phenotype is being lost, as particular traits (e.g. singing ability, physical characteristics and cage adaptation) are deliberately selected in captive breeding (Collar *et al.*, 2012; Shepherd *et al.*, 2013).

Trapping for the songbird trade is the primary cause of the species’s decline (Shepherd *et al.*, 2001; Shepherd *et al.*, 2013). Formerly widespread across its range, the Straw-headed Bulbul is currently thought to be extinct in Thailand and Java (Fishpool and Tobias, 2005; Kamtaeja *et al.*, 2012), with no confirmed records in Sumatra since 2009 (Eaton *et al.*, 2015). Anecdotal reports from trappers and traders in Indonesia state that the now-rare birds were once relatively easy to obtain from the wild (Shepherd, 2006; Collar *et al.*, 2012). Its status in Brunei is unknown, but a small population persists in Kalimantan (Tan, 2001; Brickle *et al.*, 2010; Shepherd *et al.*, 2013). Likewise, the situation in Myanmar is poorly known. Populations remain in Malaysia and Singapore (Tan, 2001; Wells, 2007; Lim, 2009).

The species is infrequently seen in Malaysian bird shops. An active underground trade network for the species is suspected to occur in the country that warrants further investigation (Shepherd *et al.*, 2013). According

to Collar *et al.* (2012), the Straw-headed Bulbul is a species that merits great consideration for conservation action. This was echoed at the Songbird Trade Crisis Summit, held in Singapore in September 2015, where the species was identified by bird experts as one of the top 12 most threatened taxa (Lee and Chng, in prep.).

STATUS IN SINGAPORE

Although classified as Endangered in the Singapore Red Data Book (Davison *et al.*, 2008), Singapore is one of the few remaining strongholds for the species. It occurs in a range of habitats and is tolerant to human-altered landscapes. Several populations are known to occur across key sites. A recent study revealed that the population of Straw-headed Bulbuls on the offshore island of Pulau Ubin has nearly doubled in 10 years, with a growth rate of 3.7% per year (Yong *et al.*, in press). The mainland Singaporean population seems stable, with a conservative reported increase of 0.56% based on annual bird censuses of standard sites. The current population estimate for the whole of Singapore is a minimum of 202 individuals, or about 1–2% of BirdLife’s global estimate (Yong *et al.*, in press).

The Straw-headed Bulbul is protected under the national *Wild Animals and Birds Act 1965*, which prohibits the killing, trapping or offering for sale or export of any wild birds other than those specified in the Act. It is also listed on the First Schedule of Singapore’s *Endangered Species (Import and Export) Act*, which controls all import and export of specimens. The species is listed in CITES Appendix II and as Vulnerable under the IUCN (International Union for Conservation of Nature) Red List (BirdLife International, 2012). The Agri-Food and Veterinary Authority (AVA) is the national authority charged with the protection of fauna in Singapore and the issuing of licences to pet shops, farms and captive-breeding centres for the sale of birds, and was designated as the CITES Management and Scientific Authority when Singapore joined CITES in 1986 (Lee, 2006).

Despite its legal protection, the illegal sourcing and trade still occurs occasionally in Singapore. Lee (2006) reports on a number of native birds, including the Straw-headed Bulbul, which are threatened by poaching for the bird trade in Singapore. Anecdotal accounts of poaching of the species in Singapore include a report from 2006 recording an encounter with two poachers in the Mandai area (Bird Ecology Study Group, 2006). Such illegal activities purportedly led to the decline of birds in areas such as Choa Chu Kang and involved well-organized poaching efforts by a local bird trader. The species was also observed in 2010 at a pet shop in close proximity to one of the known wild breeding populations (D.L. Yong, *in litt.*, August 2016).

Little is known about the extent of the threat that trapping for the illegal trade in Singapore is imposing on natural wild populations (Shepherd *et al.*, 2013). It was thought that most of the trade is for export to neighbouring countries like Malaysia (Shepherd *et al.*, 2013). However, claims by local bird traders and enthusiasts indicate that Straw-headed Bulbuls are sporadically smuggled into Singapore from Malaysia, perhaps due to a preference for Malaysian birds that are larger and deemed to sing louder (Shepherd *et al.*, 2013).

As Singapore is one of the last remaining strongholds for this fast-declining species, this paper aims to consolidate information concerning the trade of Straw-headed Bulbuls in Singapore using observations of trade in pet shops and online, CITES trade and seizure records, and examine if this is a cause for conservation concern.

METHODS

Ad-hoc observations were opportunistically conducted at a number of bird shops across Singapore in 2015, targeting shops known to carry rare and high-value species including Straw-headed Bulbuls. Additionally, observations of Straw-headed Bulbuls as part of a wider inventory of all pet shops in Singapore selling birds (Eaton *et al.*, in prep.) were included. Records of birds observed for display in the pet shops were reported to AVA for investigation.

A search on the internet using the terms “Singapore”, “Straw-headed Bulbul”, “*barau-barau*” (the Malay name for the species), “sale” was carried out in July 2016 for examples of online trade in the species. Information on seizures of Straw-headed Bulbuls involving Singapore were searched from open sources such as news sites and AVA or Singapore Customs press releases, as well as enquiries made about any confiscated birds passed on to Jurong Bird Park (of Wildlife Reserves Singapore, the official holding centre for confiscated wildlife) and Animal Concerns Research and Education Society (ACRES), a local NGO that also functions as a wildlife rescue centre. CITES trade data records were obtained from the UNEP-WCMC CITES Trade Database.

RESULTS

Trade observations in Singapore

A total of eight birds from two shops were recorded over the course of four visits during ad-hoc observations of pet shops selling birds in Singapore; it was difficult to determine whether they were the same eight individuals.

Although recorded only in very small numbers for display in pet shops, it is suspected that much of this trade is underground, as is the case in Malaysia (Shepherd *et al.*, 2013).



D. BERGIN / TRAFFIC

There is a market for the species in Singapore, as evidenced by the availability of birds online, with the Malay name for the bird “*barau-barau*” often used. An internet search uncovered advertisements offering six Straw-headed Bulbuls posted in 2013 and 2015 on Adpost.sg, for between SGD350 (USD250) and SGD1500 (USD1100). One advertisement suggested that a pair offered was wild-caught, while another said that the bird advertised was “tamed”. There appears to be some level of awareness of the value and illegality of this trade, with hobbyists on a forum taking the conversation to private messages.

Date (2015)	7 Feb	22 Feb	Jun	5 Nov*
No. of individuals	3	2	2	1
No. of shops	2	2	1	1

Table 1. The number of Straw-headed Bulbuls observed for sale in shops in Singapore in 2015.

*This observation was part of a wider inventory of pet shops selling birds in Singapore and the only Straw-headed Bulbul record (Eaton *et al.*, in prep.).

< STRAW-HEADED BULBULS AT A MARKET IN PUTUSSIBAU, WEST KALIMANTAN, INDONESIA.

The quality of its song makes the Straw-headed Bulbul a very popular cage-bird, which has resulted in extensive trapping for both domestic and international trade. It was widespread, common, and even locally abundant across much of its range until as recently as two decades ago. Persecution for the pet trade and habitat destruction continue to threaten populations across the species's range, and these factors are suspected to be driving a rapid and ongoing decline.

Source: BirdLife International (2016)

DISCUSSION

Although Lee (2006) did not find any Straw-headed Bulbuls in pet shop surveys between August 2005 and January 2006, small numbers have subsequently been recorded in pet shops and offered online. The prices offered for these individuals are comparable to those in Indonesia (a median of USD564 from 2014 and 2015 surveys; Bergin *et al.*, in prep.), suggesting a similar level of demand from specialist hobbyists.

There are three possible sources for Straw-headed Bulbuls traded in Singapore: they are the same individuals that were legally imported into the country before 2000; they were smuggled in from neighbouring countries; or they were poached from Singaporean wild populations. If the birds recorded for sale are indeed the same CITES-recorded individuals, they would be at least 16 years old. The average lifespan of a mid-sized passerine such as a Straw-headed Bulbul is up to approximately 20 years (J.A. Eaton, pers. comm., August 2016), meaning that all the legally imported individuals are “old” birds. As a number of the online advertisements were offering young birds, these birds must have been sourced from illegal means.

Although there was a lack of available seizure data for the species involving Singapore, it does not discount the fact that birds may have been smuggled into Singapore for sale. Singapore serves as an important trans-shipment junction for global bird exports, as well as a consumer nation in the bird trade (Nash, 1993; Shepherd *et al.*, 2001; Poole and Shepherd, 2016). Internationally, it is suspected that CITES-reported imports and exports of this species insufficiently reflect the actual scale of trade and it was proposed as a candidate species for the Review of Significant Trade in Specimens of Appendix-II Species in 2004 (TRAFFIC-IUCN, 2004).

The third possibility of local populations being illegally trapped is perhaps the most concerning given the relatively small size of the global stronghold Singaporean population and how accessible the known habitats are. Estimates of populations in Singapore are the most robust of anywhere in the species's wild distribution (Yong *et al.*, in press). Population estimates outside Singapore are highly uncertain, with Peninsular Malaysia populations disappearing from several previously known areas (C.R. Shepherd, pers. obs., August 2016; J.A. Eaton, *in litt.*, August 2016). Furthermore, given that the species is known to be extinct in over half of its previous areas of distribution, the Singapore population is of significant

Seizures

To date, there have been no publicly available records of animal rescues or confiscations from Jurong Bird Park or ACRES.

CITES trade records

According to the CITES Trade Database, the only reported imports of Straw-headed Bulbuls into Singapore were from Malaysia, and took place only in 1997 to 2000, involving a total of 107 importer-reported wild-caught individuals for commercial trade (Table 2).

Year	Importer	Exporter	Origin	Importer reported quantity	Exporter reported quantity	Term	Purpose	Source
1997	Singapore	Malaysia			10	live	trade	wild
1998	Singapore	Malaysia		12		live	trade	wild
1999	Singapore	Malaysia		80	80	live	trade	wild
1999	Netherlands	Singapore	Malaysia		50	live	trade	wild
2000	Singapore	Malaysia		15	15	live	trade	wild

Table 2. All reported trade of Straw-headed Bulbuls involving Singapore between 1986 and 2015.

Source: UNEP-WCMC CITES Trade Database.

global conservation importance. Therefore, even relatively low levels of collection from Singaporean populations for trade could jeopardize the survival of this species globally. On the other hand, given the small area and relative ease of vigilance to counter poaching, this is one problem where a solution could be implemented quickly and effectively. As such, this species should be a high priority for conservation efforts in Singapore and every endeavour made to address any illegal trade.

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