

Short Communication

Illegal trade pushing the Critically Endangered Black-winged Myna *Acridotheres melanopterus* towards imminent extinction

CHRIS R. SHEPHERD, VINCENT NIJMAN, KANITHA KRISHNASAMY,
JAMES A. EATON and SERENE C. L. CHNG

Summary

The Critically Endangered Black-winged Myna *Acridotheres melanopterus* is being pushed towards the brink of extinction in Indonesia due to continued demand for it as a cage bird and the lack of enforcement of national laws set in place to protect it. The trade in this species is largely to supply domestic demand, although an unknown level of international demand also persists. We conducted five surveys of three of Indonesia's largest open bird markets (Pramuka, Barito and Jatinegara), all of which are located in the capital Jakarta, between July 2010 and July 2014. No Black-winged Mynas were observed in Jatinegara, singles or pairs were observed during every survey in Barito, whereas up to 14 birds at a time were present at Pramuka. The average number of birds observed per survey is about a quarter of what it was in the 1990s when, on average, some 30 Black-winged Mynas were present at Pramuka and Barito markets. Current asking prices in Jakarta are high, with unbartered quotes averaging USD 220 per bird. Our surveys of the markets in Jakarta illustrate an ongoing and open trade. Dealers blatantly ignore national legislation and are fearless of enforcement actions. Commercial captive breeding is unlikely to remove pressure from remaining wild populations of Black-winged Mynas. Efforts to end the illegal trade in this species and to allow wild populations to recover are urgently needed. We also recommend the immediate inclusion of Black-winged Mynas in Appendix III of CITES to allow for international support to Indonesia in clamping down on international trade of the species.

Introduction

The rampant, widespread and largely unregulated trade in birds in Indonesia has pushed several species to the brink of extinction, including the Javan Green Magpie *Cissa thalassina*, Rufous-fronted Laughingthrush *Garrulax rufifrons*, Straw-headed Bulbul *Pycnonotus zeylanicus*, and Yellow-crested Cockatoo *Cacatua sulphurea* (PHPA/BirdLife International-IP 1998, Muchtar and Nurwatha 2001, Shepherd *et al.* 2004, van Balen *et al.* 2011, Collar *et al.* 2012, Collar and van Balen 2013). Although many threatened species are protected by Indonesian law, precluding their trade, and a comprehensive system exists for regulating the trade in non-protected wildlife, the rules are not being effectively enforced, and certainly over the last four decades, very little has been done to address the illegal commercial trade (Shepherd 2006, Nijman *et al.* 2009, Shepherd 2010). The Black-winged Myna *Acridotheres melanopterus* is another species whose survival in the wild is being threatened by the insatiable demand for cage birds in Indonesia, and by the

failure of the authorities to effectively enforce legislation in place to protect Indonesia's bird life (Owen *et al.* 2014).

The Black-winged Myna is endemic to the Indonesian islands of Java and Bali, and on the adjacent islands of Madura and Nusa Penida, and (perhaps only as an escapee) on Lombok (BirdLife International 2013). Traditionally referred to as the Black-winged Starling and a member of the *Sturnus* genus, recent phylogenetic work indicates the species should be reclassified as belonging to the *Acridotheres* genus (Lovette and Rubenstein 2007, Zuccon *et al.* 2008). Three subspecies of the Black-winged Myna have been described, viz. the nominate *A. m. melanopterus* in most of Java, *A. m. tricolor* in east Java (east of the town of Malang) and *A. m. tertius* on Bali (Collar *et al.* 2012). The three forms are distinguished by the extent of grey and black coloration on their mantle.

Since the 1960s, this species has been in rapid decline across its range due to illegal capture to supply the seemingly insatiable demand for cage birds (BirdLife International 2013, Owen *et al.* 2014). Formerly, this species was considered to be quite common in open lowlands including towns and gardens. In east Java and Bali especially, they were found in pairs or in small flocks, foraging on open ground such as grass lawns, and sometimes even roosting in trees and on houses in cities (MacKinnon and Phillipps 1993). By 2007, it was reported to have declined to a few hundred individuals on Java (Braasch 2007), and the wild population of *A. m. tertius* on Bali is currently thought to be 200 birds, largely within Bali Barat National Park and southernmost Bali (Collar *et al.* 2012, J. A. Eaton pers. obs. 2007–2014, H. Kusumanegara pers. obs. 2011–2014). Remaining populations are very localised and, given its severe decline, the species has been assessed as 'Critically Endangered' on the IUCN Red List (BirdLife International 2013). It is currently not listed in the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), which governs international trade in wildlife species, and to which Indonesia acceded in 1978.

The Black-winged Myna became a protected species in Indonesia in December 1979 under a ministerial instruction (SK Mentan 757/Kpts/Um/12/1979), which in 1999 was consolidated into Law Number 7 regarding the preservation of flora and fauna (PP No 7 Tahun 1999) and Law Number 8 regarding the utilisation of plants and wildlife (PP No 8 Tahun 1999). Any violation of the law carries a maximum penalty of five years in prison and / or a fine of up to IDR 100 million (approximately USD 8,500). Despite being protected by legislation, illegal capture continues, and trade is carried out openly in Indonesia's globally notorious bird markets. The species is commercially bred in the village of Klaten and the Cikananga Wildlife Center has bred over 200 Black-winged Mynas as part of a conservation breeding programme – these birds are easily recognisable as they are fitted with leg bands (Owen *et al.* 2014).

Here we outline an overview of recent developments in the conservation of the Black-winged Myna, especially where it pertains to the trade in the species in Indonesia's capital Jakarta. It aims to inform enforcement agencies of this illegal trade, and to assist in guiding further conservation actions to prevent the species from going extinct in the wild.

Methods

Three of Jakarta's largest bird markets – Pramuka, Jatinegara and Barito – were visited on five occasions between July 2010 and July 2014. All three markets are comprised of shops openly selling birds and, to a lesser extent, small mammals and reptiles. Pramuka is the largest, with a four-storey building occupied almost exclusively by traders in birds and aviculture supplies such as food and cages. Barito and Jatinegara both consist of bird shops, both permanent and occasional in the latter, with a few temporary, mobile vendors. All three markets openly display illegally sourced and protected species.

Due to the size of the markets and the volume of birds for sale - Pramuka alone had close to 90 shops selling over 16,000 birds in July 2014 - most surveys targeted a selected number of species, including the Black-winged Myna. Black-winged Mynas were recorded to a subspecies level only in a few of the surveys, as the focus of the surveys was not always solely on this species. In July 2014, price data were obtained by interviewing dealers or through direct observation of the sale

of these birds at the markets. Black-winged Mynas, like most other birds, were openly displayed for sale, and therefore no covert investigation methods were employed.

Additional data on international trade in the species were compiled from literature searches, market surveys in other South-east Asian countries carried out by TRAFFIC in the period 2010–2014 and correspondence with other birdwatchers and conservationists. Currency conversion rates were obtained from OANDA in July 2014.

Results

Domestic trade in Jakarta

The Black-winged Myna has been present in trade in Indonesia for decades, despite being protected by law, with probably always some of the largest numbers traded in the Jakarta bird markets. It is this largely domestic demand that has resulted in the severe decline and near extinction in the wild. Surveys of Pramuka market, Jakarta, in December 1987 by Basuni and Setiyani (1989) estimated that some 300 Black-winged Mynas were traded in this market each month. In 1987 vendors bought Black-winged Mynas for IDR 5,000 (then USD 3.13) and sold them in the market for IDR 20,000 (then USD 12.50), placing them in the top one-third most expensive birds for sale out of 65 species observed during that survey. During surveys carried out by TRAFFIC in 1991–1993 on average some 30 Black-winged Mynas of both *S. m. melanopterus* and *S. m. tricolor* subspecies were observed in Jakarta's bird markets per survey (Nash, 1993). In May–July 2009 the Indonesian NGO ProFauna surveyed 70 bird markets across Java and recorded three Black-winged Mynas (one each in Bojonegoro and Sragen in East Java and one in Cianjur in West Java), but none in the four Jakarta markets included in the survey. They were offered at a price of between IDR 150,000 (then USD 14.92) to IDR 350,000 (USD 34.82) (ProFauna 2009).

While trade persists and the species is consistently available, as seen from irregular surveys carried out by TRAFFIC and occasionally other organisations, numbers observed in recent years have fallen sharply. An average of seven Black-winged Mynas were observed in Pramuka and Barito markets per survey in the period 2010–2014. Single birds or at most pairs were observed in Barito market during this period, whereas larger numbers were on sale in Pramuka market. In recent years, we have not observed Black-winged Mynas in Jatinegara market (Table 1).

In July 2010, five Black-winged Mynas were observed during surveys in these same three markets in Jakarta (Table 1). According to a dealer in Pramuka market, three of the four birds in his shop were captive-bred. The dealer would not divulge further information. These birds were not recorded to subspecies level.

In January 2013, four Black-winged Mynas of the nominate race were observed in Pramuka market, while two birds were observed at Barito market. In July 2013, three Black-winged Mynas of the nominate race were observed in Pramuka market.

In July 2014, two subspecies of Black-winged Myna were observed: *A. m. melanopterus* and *A. m. tertius*, with 11 and three birds observed, respectively. All were in Pramuka market with the exception of one *A. m. melanopterus* observed in Barito market. The *A. m. melanopterus* were spread across four shops and the *A. m. tertius* in two shops, with no shop selling both subspecies. None of the birds had leg bands, indicating they were likely not from a captive breeding

Table 1. Number of Black-winged Mynas *Acridotheres melanopterus* recorded from three bird markets in Jakarta, Indonesia (NA = not available)

Market	July 2010		5-6 April 2012		20-21 January 2013		1-3 July 2013		21-23 July 2014	
	Birds	Shops	Birds	Shops	Birds	Shops	Birds	Shops	Birds	Shops
Pramuka	4	NA	5	3	4	3	3	1	13	6
Jatinegara	NA	NA	0	0	0	0	0	0	0	0
Barito	1	1	2	1	2	1	0	0	1	1

facility. In all cases, the birds were openly displayed, indicating the dealers had little fear of prosecution from law enforcement officials.

Prices were obtained from three shops in July 2014. In one, the asking price for a seemingly wild-caught *A. m. tertius* was IDR 1,200,000 (USD 103). In a second shop, the asking price for an *A. m. melanopterus* was IDR 2,500,000 (USD 214), which the dealer claimed was captive-bred in Malang, east Java. In a third shop four young *A. m. melanopterus* were on sale for IDR 3,000,000 (USD 256) each, which the dealer claimed were captive-bred in Solo, Central Java. Online price lists of Black-winged Mynas for sale at Pramuka list a price of IDR 1,500,000 (USD 128) for 2014 (ID Bagus 2014).

None of the birds observed in markets had leg rings. This suggests that the birds are wild-caught, but additionally could represent birds stolen from conservation or commercial breeding projects and had their rings removed (Box 1).

International trade

Black-winged Mynas have been traded internationally for decades. An escapee population, established through the cage bird trade from Java, was present in Singapore as early as the 1920s (Chasen 1935). Populations have become established and died out again over the ensuing years in Singapore, each time being founded by escaped birds (Lim 2009, D. L. Yong *in litt.* 2014), indicating an ongoing trade to buyers in Singapore.

In 2010, a pair of Black-winged Mynas was observed by TRAFFIC staff in a bird shop in Chatuchak Market, in Bangkok, Thailand, indicating that this species is being smuggled out of Indonesia to foreign markets as well. The dealer was selling the pair for THB 80,000 (USD 2,505).

Box 1. Theft of Black-winged Mynas from a conservation breeding centre

On the night of 9 June 2014, the *Pusat Penyelamatan Satwa Cikananga* (Cikananga Wildlife Center) in Sukabumi, West Java, was broken into and 62 Black-winged Mynas of the West Java subspecies *A. m. melanopterus* and one Bali Myna *Leucopsar rothschildi* were stolen.

A second theft took place days later on the morning of 16 June and this time 92 birds were stolen, including 87 Black-winged Mynas of the west Java subspecies *A. m. melanopterus*, two Black-winged Mynas of the Bali subspecies *A. m. tertius* and three Sumatran Laughingthrushes *Garrulax bicolor*. All the birds had identification leg rings, all of which were closed rings, with the exception of nine birds.

The theft, which represents the majority of the birds in this breeding programme, was reported to the authorities, but to date none of the birds have been recovered. This theft represents a severe blow to the efforts being made to ensure the Black-winged Myna is not lost forever.

During this period, 10 attempts of theft were recorded, three of which were successful. The security of the Centre was breached with precision, by those who had meticulously studied its safety operations (Titto and Sözer 2014). It is not known if these birds were stolen to supply local demand or for an international market. Further, it has been revealed that commercial breeders are also targeted by such bird theft, an increasing criminal activity in response to a rapidly declining and increasingly valuable species (R. Wirth *in litt.* 2015).

Given the pressures of poaching on wild populations of this species, conservation breeding is essential, as are efforts to rebuild this population, and to establish further captive populations to safeguard against such tragedies.

As this species is not currently listed in the CITES Appendices, there is little reason or motivation for governments outside of Indonesia to take action against the trade in this species.

Discussion

Our results indicate a consistent domestic trade in Black-winged Mynas that does not appear to be abating despite legislation in place prohibiting this practice and the extreme decline in the wild population. While the numbers of birds in the markets appear to be small, the thefts from breeding facilities and the high asking prices serve to highlight their extreme rarity in the wild. Unless steps to end this illegal trade are taken immediately, there is every reason to believe this species will go extinct in the wild in the near future. Lack of enforcement of the laws protecting this species is to blame for its continued poaching and open availability in wildlife markets in Indonesia (Shepherd 2006, 2010).

While the bulk of the trade appears to supply domestic demand, there is an unknown level of demand in international markets too. Given its fully protected status in Indonesia, all Black-winged Mynas can be assumed to have been illegally sourced and smuggled out of the country. As the species is not listed in the CITES Appendices, there are no official international trade records, and given the clandestine nature of the illicit wildlife trade, there is a paucity of information on the scale and dynamics of the international trade in Black-winged Mynas. If Indonesia were to list this endemic species in Appendix III of CITES, which may be done at any time by Indonesia without the need for support from other CITES Parties, all birds appearing in international trade from Indonesia would need a permit of origin to prove legality. This would allow for international support to Indonesia in clamping down on the international trade, and help with the monitoring of such trade.

While some commercial captive breeding of the species is taking place in Indonesia (Owen *et al.* 2014), it is likely that breeders are operating outside the legal commercial breeding system and are utilising illegally acquired parent stock. Furthermore, the commercial captive breeding of this species does not seem to be removing the demand for illegally sourced birds, as illustrated by the continual capture and subsequent decline of wild birds, and the recent theft of birds from a conservation breeding centre (Box 1). Commercial captive breeding is therefore unlikely to remove pressure from remaining wild populations of Black-winged Mynas as long as enforcement efforts to prohibit the poaching and trade of the birds is absent or inefficient, and as long as the profit margins outweigh the risks for catching and selling these birds.

Recommendations

Action is therefore urgently needed to address the widespread and large-scale bird trade in Indonesia. We make the following recommendations in order to begin reducing the threat posed by trade to the Black-winged Myna.

The Indonesian authorities, namely the Natural Resources Conservation Agency (BKSDA) under the Directorate General of Forest Protection and Nature Conservation (PHKA), responsible for the regulation of harvest and trade in wildlife at the national level, needs to take swift action to end the illegal trade in this species. Periodic monitoring of wildlife trade hotspots, including the three markets discussed here, and subsequent enforcement actions taken against traders found to be selling birds and other wildlife illegally will, in the long term, serve as a deterrent to those violating the law.

Advocacy and awareness activities to discourage Indonesians, who serve as primary buyers of these birds, from buying protected wildlife must be developed and implemented to reduce trade in the species. Such activities must highlight the consequences of violating the law to create a deterrent.

Improved security measures are needed at conservation breeding centres to reduce the risk of theft, as these programmes, or assurance colonies, are essential at this point in time to ensure this species does not become extinct.

As recommended by the IUCN Red List assessment, the authors support the listing of this species in the Appendices of CITES. Given the species' current status, and the possibility of it entering the international market, we recommend the Indonesian Government, as the single range country, to pursue an Appendix III listing, a move that does not require a vote at the Conference of the Parties and would be effective almost immediately. This would allow for international support to Indonesia's national ban on the trade in this species and enable any international trade to be monitored and regulated through co-operation with other CITES Parties.

Acknowledgements

We thank Resit Sözer for providing us with the details of the two thefts that took place at the Cikananga Wildlife Center. Ding Li Yong is thanked for providing information regarding the presence of this species in Singapore, and Hery Kusumanegara for their presence in Bali Barat National Park. Roland Wirth, Richard Thomas and an anonymous reviewer are thanked for helpful comments on earlier drafts of this report. This work was generously supported by an anonymous donor.

References

- BirdLife International (2013) *Sturnus melanopterus*. *The IUCN Red List of Threatened Species. Version 2014.2*. (Accessed online at <http://www.iucnredlist.org>).
- Basuni, S. and Setiyani, G. (1989) Studi perdagangan burung di pasar Pramuka, Jakarta dan teknik penangkapan burung di alam. *Media Konservasi* 2: 9–18. (In Indonesian).
- Braasch, T. (2007) Hoffnung für den Schwarzflügelstar. *ZGAP Mitteilungen* 23: 6–7.
- Chasen, F. N. (1935) *A handlist of Malaysian birds*. Singapore: Government Printer's Office.
- Collar, N. J. and van Balen, S. (2013) Notes for the conservation of the Rufous-fronted Laughingthrush *Garrulax rufifrons*. *Forktail* 29: 15–18.
- Collar, N. J., Gardner, L., Jeggo, D. F., Marcordes, B., Owen, A., Pagel, T., Vaidl, A., Wilkinson, R. and Wirth, R. (2012) Conservation breeding and the most threatened birds in Asia. *BirdingAsia* 18: 50–57.
- ID Bagus (2014) *Daftar harga burung di Pasar Pramuka Jakarta terbaru 2014*. (Accessed online at <http://www.id-bagus.com/2013/06/daftar-harga-burung-di-pasar-pramuka.html>). (In Indonesian).
- Lim, K. S. (2009) *The avifauna of Singapore*. Singapore: Nature Society (Singapore).
- Lovette, I. J. and Rubenstein, D. R. (2007) A comprehensive molecular phylogeny of the starlings (Aves: Sturnidae) and mockingbirds (Aves: Mimidae): Congruent mtDNA and nuclear trees for a cosmopolitan avian radiation. *Mol. Phyl. Evol.* 44: 1031–1056.
- Mackinnon, J. and Phillipps, K. (1993) *A field guide to the birds of Borneo, Sumatra, Java and Bali*. New York, USA: Oxford University Press.
- Muchtar, M. and Nurwatha, P. F. (2001) *Gelatik Jawa dan Jalak Putih: status dan upaya konservasi di Jawa dan Bali* [Java Sparrow and Black-winged Starling: status and conservation effort in Java and Bali]. Bandung, Indonesia: Yayasan Pribumi Alam Lestari. (In Indonesian).
- Nash, S. (1993) *Sold for a song: The trade in Southeast Asian non-CITES birds*. Cambridge, UK: TRAFFIC International.
- Nijman, V. Shepherd, C. R. and van Balen, S. (2009) Declaration of the Javan hawk-eagle as Indonesia's National Rare Animal impedes conservation of the species. *Oryx* 43: 122–128.
- Owen, A., Wilkinson, R. and Sözer, R. (2014). In situ conservation breeding and the role of zoological institutions and private breeders in the recovery of highly endangered Indonesian passerine birds. *Internatn. Zoo Yearbook* 48: 199–211.
- PHPA/BirdLife International-IP (1998) *Yellow-crested Cockatoo recovery plan*. Bogor, Indonesia: PHPA/LIPI/BirdLife International-Indonesia Programme.

- ProFauna (2009) Wildlife trade surveys on the bird market in Java. Malang, Indonesia: ProFauna.
- Shepherd, C. R. (2006) The bird trade in Medan, North Sumatra: an overview. *BirdingAsia* 5: 16–24.
- Shepherd, C. R. (2010) Observations on trade in laughingthrushes (*Garrulax* spp.) in North Sumatra, Indonesia. *Bird Conserv. Internatn.* 21: 86–91.
- Shepherd, C. R., Sukumaran, J. and Wich, S. A. (2004) *Open season: An analysis of the pet trade in Medan, Sumatra 1997-2001*. Petaling Jaya, Malaysia: TRAFFIC Southeast Asia.
- Tritto, A. and Sözer, R. (2014) Bird thieves in Java show that Indonesian wildlife crime knows no boundaries. *J. Indonesian Nat. Hist.* 2: 11–12.
- Van Balen, S., Eaton, J. A. and Rheindt, F. R. (2011) Biology, taxonomy and conservation status of the Short-tailed Green Magpie *Cissa [t.] thalassina* from Java. *Bird Conserv. Internatn.*: 1–19.
- Zuccon, D., Pasquet, E. and Ericson, P. G. P. (2008) Phylogenetic relationships among Palearctic-Oriental starlings and mynas (genera *Sturnus* and *Acridotheres*: Sturnidae). *Zool. Scripta* 37: 469–481.

CHRIS R. SHEPHERD, KANITHA KRISHNASAMY, SERENE C. L. CHNG*
TRAFFIC in Southeast Asia, Unit 3-2, 1st Floor, Jalan SS 23/11, Taman SEA, Petaling Jaya, Selangor, Malaysia 47400.

VINCENT NIJMAN
Oxford Wildlife Trade Research Group, Oxford Brookes University, Headington Campus, Oxford OX3 0PP, UK.

JAMES A. EATON
Birdtour Asia, Derby, UK.

* Author for correspondence; email: serene.chng@traffic.org

Received 23 December 2014; revision accepted 8 April 2015