Bird species contested at songbird competition in Jabodetabek Region, Indonesia

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Abstract. Songbird contests have been widely held in various regions lately, indicating the high interest of community towards this type of contest. The objectives of this study were to identify bird species contested in Jakarta, Bogor, Depok, Tangerang and Bekasi (Jabodetabek) region, classify them based on their conservation status, and collect other information related to bird conservation efforts. Of 20 bird contests that took place during the research period (March-May 2018) it was revealed that there were 15 species of birds (12 local species, 3 foreign species) that were contested. The species that was always contested in every event was Lovebird, while other frequently contested species (>50%) were Greater Green Leafbird, White-rumped Shama, Oriental Magpie-robin, and Canary. There was one protected species, i.e., Greater Green Leafbird that was contested. Based on the IUCN threat status, one vulnerable species was contested, i.e., Greater Green Leafbird. Near threatened species contested were Chestnut-capped Thrush and Lovebird. Based on CITES category, one species listed in Appendix II was found, i.e., Hwamei, which is a foreign species. Efforts made by the organizers of bird contests in bird conservation were to hold a class of rings (markers), to ensure that the contested birds originate from captive breeding.

1. Introduction

Birds are considered as the most popular pet in urban communities in Indonesia, as reported by Jepson and Ladle [1]. Around 21.8% of inhabitants in five big cities, keep birds as pet. In the past, according to Javanese culture, a man is considered established when he already has a bird in a cage [2]. However, nowadays birds are not only kept in the cage, but also used in contests. Songbird contest has been developed in Indonesia since 1976.

Birds are contested for their songs. Assessment in the contest includes song rhythm, song volume, length of song, and physical appearance of the bird. The best song rhythm is characterized by the ups and downs continuous tone. Song volume is rated by its loudness and cleanness, while song duration is rated by the length of song [3].

Songbird contest in Indonesia is increasing rapidly. This can be seen by the emergence of various local and national events in many regions. Regions with rapid increase of songbird contest activities are Jakarta, Bogor, Depok, Tangerang and Bekasi (Jabodetabek). The frequency of activities can be monthly, annually, and become a routine.

The increase in songbird contests or competition is believed to have positive impacts on people’s knowledge and economy [2], but there is an increase of risk on the wild bird sustainability. Therefore, information on songbird species used in the contest, including their conservation status is important.
Unfortunately, there is limited scientific information regarding songbird contests that has been conducted and reported. This study was conducted to identify bird species contested in Jabodetabek area and to classify them based on their conservation status. Additional information related to efforts in bird conservation are also collected.

2. Methods
This study was conducted in Jabodetabek region from March to May 2018. Direct observation on bird species was conducted in 20 events of songbird contests. The event is a meeting of songbird owners in which they contesting their songbirds. There are two types of events, i.e Latihan (practice) and Lomba (competition or race). Songbird contests are usually categorized based on the number and origins of participants: less than 500 participants from Jabodetabek region (called latber and latpres or practice), and more than 500 participants with participant from area outside Jabodetabek region (called lomba or competition). In this study we categorized all types of events as event of songbird contest. Information on event of songbird contests was obtained from various sources, especially from media social networks.

Interview with songbird contest committees in each event (16 latber/latpres, 4 lomba) was conducted to obtain information on their involvement in bird conservation efforts. Interview with the owners of the birds (238 respondents) was also conducted to obtain information on bird origin, and to examine whether there is any involvement in bird conservation related activities. Analysis was conductive qualitatively by listing bird species based on their origin (local or foreign) and conservation status. Conservation status was categorized into three, i.e protection status (Ministry of Forestry Regulation No P 106/MENLHK/SETJEN/KUM.I/12/2018), threat status (IUCN), and international trade status (CITES). The frequency of bird species found in each event was calculated and converted into percentage.

3. Results
3.1 Bird species and their origins
Fifteen bird species of 12 families were found in 20 songbird contests (Table 1). They consisted of 12 native species, and 3 foreign/exotic species. The natural distribution of local birds includes the islands of Sumatra, Kalimantan, Jawa, Bali, and Madura, whilst foreign species had natural distribution in Spain, Tanzania, and China. Based on the acquisition of birds owned by the participants, most participants obtained the birds from bird market (81.9%), followed by captive breeding (14.3%), gift (2.5%), collecting from the wild (0.8%), and from barter (0.4%). Interview with participants also revealed that they have done captive breeding effort for some species, especially lovebird.

There was one species found in one of the events that was not used in the contest, but for trade i.e., chick of Oriental Dollarbird (Eurystomus orientalis). This species distributed in almost all regions in Indonesia. Within the songbird contest actors, this species is known as the “master bird”, that is used to train other songbirds to mimic its song. Young Oriental Dollarbird is used as master bird because of its unique, fast, and loud voice.

| Family        | Local Name          | Scientific Name      | Natural Distribution | Captive Breeding effort? |
|---------------|---------------------|----------------------|----------------------|--------------------------|
| Local Birds   |                     |                      |                      |                          |
| Alaudidae     | Branjangan jawa     | Mirafra javanica     | K, J                 | NA                       |
|               | Horsfield’s Bush Lark |                      |                      |                          |
| Chloropseidae | Cicadaun besar      | Chloropsis sonneratti| S, K, J              | 1.6%                     |
| Family                  | Local Name                      | English name                 | Trade Name       | Scientific Name          | Natural Distribution | Captive Breeding effort? |
|------------------------|---------------------------------|------------------------------|------------------|--------------------------|-----------------------|--------------------------|
| Greater Green Leafbird | Pycnonotidae                     |                              |                  |                          |                       |                          |
|                        | Empuloh janggut                 | Grey-cheeked Bulbul          | Cucak jenggot    | *Criniger bres*          | S, K, J               | N/A                      |
| Laniidae               | Bentet kelabu                   | Long-tailed Shrike           | Pentet/Toet      | *Lanius schach*          | S, K, J               | N/A                      |
| Turdidae               | Kucica kampung                  | Oriental Magpie-Robin        | Kacer            | *Copsychus saularis*     | S, K, J               | 1.6%                     |
|                        | Kucica hutan                    | White-rumped Shama           |                  |                          |                       |                          |
|                        | Anis kembang                    | Chestnut-capped Thrush       | Murai batu       | *Copsychus malabaricus*  | S, K, J               | 10.6%                    |
|                        | Anis merah                      | Orange-headed Thrush         | Anis kembang     | *Zoothera interpres*     | S, K, J               | NA                       |
|                        | Anis merah                      |                               |                  |                          |                       |                          |
| Sylviiidae             | Perenjak jawa                   | Javan Prinia                 | Ciblek           | *Prinia familiaris*      | S, J                  | 2.4%                     |
|                        | Javan Prinia                    |                               |                  |                          |                       |                          |
| Nectariniidae          | Burungmadu bakau                | Copper-throated Sunbird      | Kolibri ninja    | *Leptocoma calcostetha*  | S, K, J               | 0.8%                     |
| Zosteropidae           | Kacamata biasa                  | Oriental White-eye           | Pleci            | *Zosterops palpebrosus*   | K, J                  | 0.8%                     |
| Sturniidae             | Jalak suren                     | Pied Myna                    | Jalak suren      | *Sturnus contra*         | S, J                  | NA                       |
| Foreign birds          | Psittacidae                     |                               |                  |                          |                       |                          |
|                        | *Lovebird*                      |                               |                  |                          |                       |                          |
|                        | Lovebird                        |                               |                  | *Agapornis spp.*         |                       | 74%                      |
| Timaliidae             | Hwamei                          |                               |                  | *Garrulax canorus*       |                       | NA                       |
| Fringillidae           | Kenari                          |                               |                  | *Serina canaria*         |                       | 5.7%                     |

Note: * NA, No information available

3.2. Bird conservation status and frequency of contests
Among birds used in the contest, there was one protected species based on the Ministry of Forestry Regulation No P 106/MENLHK/SETJEN/KUM.I/12/2018; which is Greater Green Leafbird. Based on the threat status, the Greater Green Leafbird was categorized as vulnerable (VU), while Chestnut-capped Thrush and lovebird were categorized as Near threatened (NT). The rest are species with least concern
(LC) status. Based on CITES category, one species was listed in Appendix II, that is hwamei, a foreign species.

The most frequent species found in the contests are lovebirds (*Agapornis* spp.), that was found in all 20 events during this study. In this study we lump the lovebirds into one group because the committee usually classifies the lovebird classes into four classes, and not by species. The four classes were under five months (*balibu*), prospect (young), adult, and free action class (in which birds get score anytime it sings). Four other species that were frequently found were Greater Green Leafbird, White-rumped Shama, Canary, and Oriental Magpie Robin (Table 2).

**Table 2. Composition of bird species used in songbird contest based on conservation status.**

| Species              | P 106/MENLHK/SETJEN/ KUM/I/12/2018 | IUCN    | CITES     | Frequency of contest (%) |
|----------------------|-----------------------------------|---------|-----------|--------------------------|
| Lovebird             | ★                                 | NT      | Non-Appendix | 20 (100)                 |
| Cicadaun besar       | Protected                         | VU      | Non-Appendix | 18 (90)                  |
| Kucica hutan         | Non protected                     | LC      | Non-Appendix | 15 (75)                  |
| Kenari               | ★                                 | LC      | Non-Appendix | 13 (65)                  |
| Kucica kampung       | Non protected                     | LC      | Non-Appendix | 11 (55)                  |
| Kacamata biasa       | Non protected                     | LC      | Non-Appendix | 7 (35)                   |
| Anis merah           | Non protected                     | LC      | Non-Appendix | 3 (15)                   |
| Perenjak jawa        | Non protected                     | LC      | Non-Appendix | 3 (15)                   |
| Bentet kelabu        | Non protected                     | LC      | Non-Appendix | 3 (15)                   |
| Burungmadu bakau     | Non protected                     | LC      | Non-Appendix | 3 (15)                   |
| Anis kembang         | Non protected                     | NT      | Non-Appendix | 1 (5)                    |
| Branjangan jawa      | Non protected                     | LC      | Non-Appendix | 1 (5)                    |
| Empuloh janggut      | Non protected                     | LC      | Non-Appendix | 1 (5)                    |
| Hwamei               | ★                                 | LC      | Appendix II | 1(5)                     |
| Jalak suren          | Non protected                     | LC      | Non-Appendix | 1 (5)                    |

★Foreign bird

3.3. **Efforts of the contests organizing committee in songbird conservation**

Conservation efforts done by the committee was conducting ring of mark class. The aim of conducting this class is to reduce illegal hunting. Birds that are allowed to enter the contest are those originated from captive breeding, identified by ring or band on bird’s leg. This study revealed that there were 20% of organizing committees that conducted the ring class. The species in this class usually is White-rumped Shama.
4. Discussion

4.1 Species and origin of contested birds
The number of bird species contested is higher than reported by Iskandar and Iskandar in Bandung area who found 14 species of 8 families, including 3 foreign species [2], Mafaja and Husain in Blora, Central Java who identified 9 species of 7 families [5], and Heikal who reported in Bekasi with 11 bird species [6]. This difference might be due to the difference in scope of area studied. Lovebirds (Agapornis spp) were reported as the most popular contest bird in all regions. However, there were more native bird species contested in Jabodetabek (80%) compared to foreign species, which is logical because imported bird species into Indonesia was only 2% [7]. Previous study showed that Indonesian people preferred local to foreign species (86.8%) [1].

Native species contested were originated from Oriental region (Sumatra, Java, Kalimantan). It might be affected by the availability of bird species in the market, since more than 90% birds traded in West Java were originated from Oriental region [8]. Most participants or bird owners that entered the contest obtained their birds from the market, assuming that those birds were captured from the wild. Captive breeding effort was mostly done for Lovebirds, because this species is considered easy to maintain. Local species preferred by songbird actors were White-rumped Shama and Oriental Magpie Robin. Those two species are members of Turdidae family that is known to have good singing skills with beautiful, melodious and varied song. There have been several studies on captive population of this species, which include among others the reproduction, behaviour and business opportunity. Captive breeders identified White-rumped Shama into two origins or race i.e Medan and Lampung. The race used in the contest was the one from Medan, because it has melodius song and nice physical appearance [9]. White-rumped Shama is preferred by bird enthusiast, because it has high economic value. The chick of this species (2-3 months old) is valued between IDR 2,000,000-5,000,000 depend on parent quality [10].

Foreign bird that is always found in the event was lovebird, because this bird has melodious song and beautiful feathers [11]. Therefore, it is not surprising that the variety of colour is increasing as a result from captive breeding and hybridization by the breeders.

4.2 Conservation status and efforts
The occurrence of threaten and protected species in the list of bird species contested should become a concern, especially if there is no information on captive breeding effort. Greater Green Leafbird changed its threat status from Least Concern (LC) in 2012 to Vulnerable (VU) in 2016, which means that this species is experiencing extinction in the wild. Greater Green Leafbird has natural distribution in southern parts of Myanmar, southwest Thailand, Kalimantan, and the islands of Greater Sunda, inhabiting lowland forest, secondary forest, and sometimes in the plantation up to elevation of 1100 m above sea level [12].

Chestnut-capped Thrush fell into category of Near Threatened (NT) because the population is declining due to hunting, trade, and forest degradation [12]. Furthermore, information on natural population of this species is also lacking. The habitat of this species is lowland forest in Malay Peninsula. Greater Sundas, the Philippines, dan some parts of Lesser Sunda [13].

White-rumped Shama and Oriental Magpie Robin have similar threat status, which is Least Concern, that means this species has low risk of extinction. However, illegal trade to fulfil the demand from songbird lovers may drive this species to extinction. Based on field observation, White-rumped Shama is one of the species with the highest capture from natural habitat (around 600 birds per month) and even it has become inter-island trade commodity [14] that had made this species protected by law at this time of the study.

Lovebird is categorized as Near Threatened, which may mean that this species is approaching the threatened category in the near future. Hunting for lovebirds as pet has been banned in 1995, although its population in the wild is considered safe and there is possible trade again [12]. Since the ban, this species was increasingly being bred in captivity to be traded as pets.
Other foreign species were Canary and Hwamei. Canary was also a favourite song bird preferred by songbird lovers because it has beautiful feather colors. Canary is originated from Southwestern Europe (Azores, Madeira and the Canary Island). It has small body and has a lot of variations. Imported Canary is used as contest bird because it has interesting body posture, loud song with jazzy-like rhythm [9].

One of the efforts of organizing committee to conserve songbird species is by organizing ringed or marked class. Birds produced from captive breeding facilities will get a certification in the form of ring or band applied to bird’s leg when the bird was about one week old [15]. The fact that there are participants and organizing committee that do not conduct such effort does not necessarily mean that they are against such effort, but they are facing some constraints, such as no capital to make captive breeding facility or they have no time to provide thorough maintenance to the birds.

There are participants who are also involved in bird conservation by doing small scale captive breeding. According to Iswantoro [16] one of the efforts to do conservation is by doing captive breeding, especially for the species that started to be rare. The species that commonly bred in captivity is lovebird because the maintenance is relatively easy and does not need much cost. The maintenance of lovebird is relatively simple because this species has high resistance to disease [17].

5. Conclusion

People still preferred local Indonesian birds to be contested, although there were foreign birds resulted from captive breeding that were also contested. Lovebird was always present in every contest event. One of the most popular native birds (Greater Green Leafbird) are already listed as protected species, therefore captive breeding effort needs to be highly encouraged so that songbird lovers do not have to obtain pets from natural catch. Other species that need to be concerned is Oriental Magpie Robin. This species is highly preferred as contest bird and not protected by law. Considering that there is no specific regulation on bird contest, it is necessary to ask a standardization of this activity, that include regulation on species to be contested, origins, conservation efforts, and other criteria following animal welfare.

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