

Strength of Artificial Selection on Tumbler-Roller Pigeons

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ABSTRACT

To know the evolution of tumbling styles of pigeons, some top tumbler-roller pigeons need to assess minutely during flying or performing on the ground. Experiences, videos, images, and oral communication with some successful tumbler-roller breeders encouraged to write this exceptional topic. Out of 9 top tumbler-roller pigeons in the world (7 breeds of Bangladesh), 7 breeds showed dorso-ventral tumbling in the sky, and 2 breeds showed rotating flying with rolling both in the sky and on ground. Among these, 6 breeds were noticed as rollers (ball-type, fast, and consecutive somersaults) and 3 tumblers (single or twice somersault). Selective breeding was the precursor to produce different types of tumbler-roller pigeons in different places of the world.

Keywords: Tumbler-Roller Pigeons, Tumbling Styles, Non-Tumbling Tumblers, Artificial Selection, Natural Selection.

INTRODUCTION

Tumbler pigeons are considered one of the oldest known varieties of pigeons and the most favorite to all pigeon breeders [1]. In the world, the number of tumblers, rollers, and highfliers are found with remarkable characteristics [2]. After observation of these tumbling characteristics, pigeon breeders maintained selective breeding between or among them. In fact, Indian subcontinent was famous for many tumblers and rollers as well. Early tumblers were small with different colors and capable of height flying. Short-faced tumbler occurred in England with emphasis upon show bird with their aerial ability eventually lost. The oriental rollers belong to the class of medium beaked tumblers. These pigeons generally fly alone by reason to see their falling through spinning balls again and again. There is no doubt that tumbling or rolling is an involuntary activity. Tipplers should merely throw a single and frequent somersault. Tippler is supposed to have been a cross between tumbler and cumulet in order to improve their flying qualities. Batty [3] described some tumbler and roller pigeons in his book. In addition, Levi [4] described maximum performing pigeons with color plates in his renowned and informative compilation. The objective of this study is to get informed about the power of artificial selection on the tumbling styles of pigeons.

WORLD'S TOP TUMBLER-ROLLER PIGEONS

Oriental roller: This pigeon is not available in Bangladesh but few have with no flying record. This pigeon is somewhat goolee pigeon that have downward primaries and upper tail [5]. This pigeon exhibits

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Birmingham type rolling but tumbling episodes are less. Experienced birds could control themselves during flying but inexperienced or juveniles sometimes crashed on the loft or ground. They show a variety of different acrobatics—single somersault, double somersaults, rotating with open wings, nose dives, and sudden change of direction and rarely axial turns. Some breeds fly up to 1000 m high, others stay in the air for several hours. Falcons and hawks of Bangladesh are the major threats not only for this oriental roller but also other tumbler pigeons. Breeding season of hawk or falcon always should be followed, irregularly flying schedule, and to setup a piece of mirror on the top of trees could help to control these predator birds. From minimum 10 feet height, this pigeon could perform. Chittagong Division of Bangladesh, there are some yellow oriental rollers.

Birmingham roller: Birmingham roller is a performing bird with around 10,000 breeders worldwide. It has genetic inclination to flip backward. To store its genetic resources, it needs adequate training and proper diet. Birmingham roller is a small pigeon, lack of homing, settle quickly, rapid somersault, and ball-type spinning [6]. Their continuous ball-type rolling is really an exceptional acrobat in the sky. Recently, these pigeons are available in Dhaka Bangladesh with many colors but flying records are not kept by pigeon keepers.

Prishtina rotating roller: This breed is not found in Bangladesh. Their rolling styles are somewhat dunek but finally it ends less rotating style during landing.

Dunek rotating roller: This breed is not available in Bangladesh. Its rolling types are really peculiar and exhibits unbelievable rotating at the time of landing [7].

Turkish tumbler: This breed is found in Bangladesh with wild-type head and grouse leg. The neck is comparatively long than others. Bangladeshi house-tumbler could be originated from this breed. It tumbles huge in balcony or in the sky. After rolling down, suddenly fly again with continuous tumbling, this is their specialty. Color variations are many.

Uzbekian tumbler: Uzbekian tumblers can be exhibition or performing bird. This is uncommon in Bangladesh and single- or double-crested with muff. Its tumbling makes remarkable clapping sound.

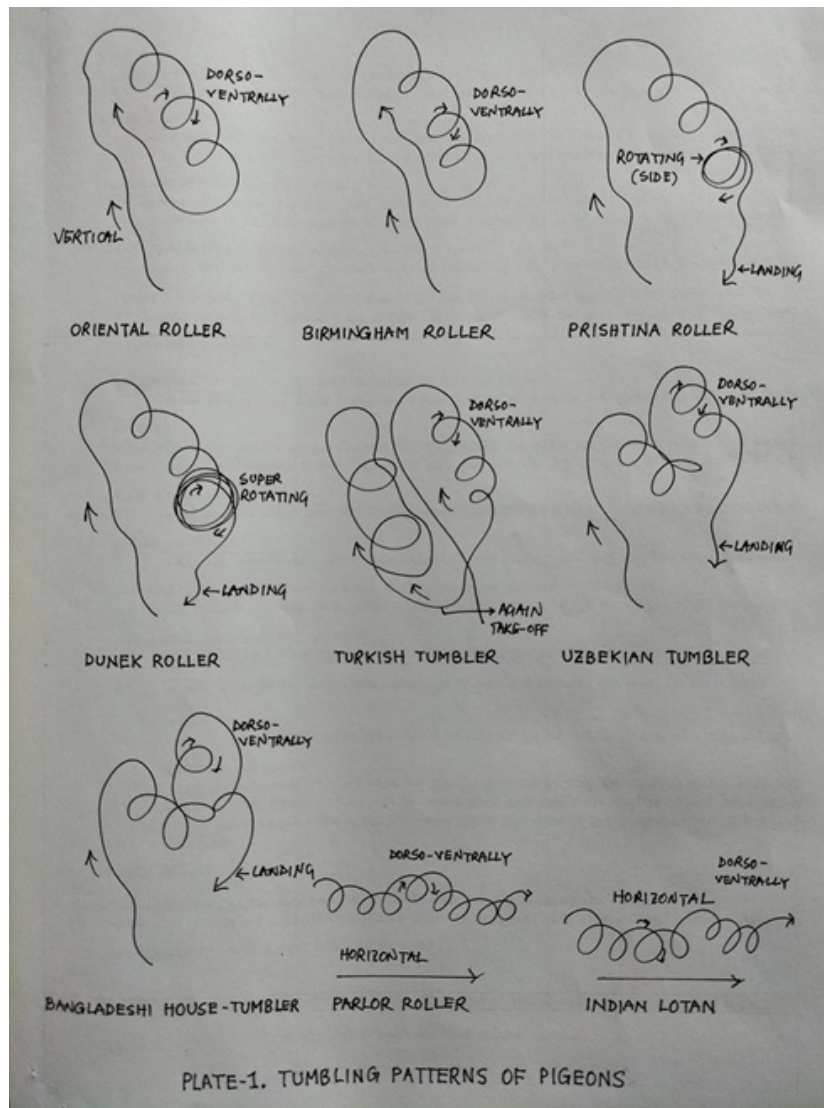
Bangladeshi house-tumbler pigeon: There were many Pakistani highfliers and English tiplers in Bangladesh. Selection after selection between and among tumbler pigeons, pigeon breeders got desirable type of tumbler pigeons. Recently, Rajshahi Division of Bangladesh, they produced Bangladeshi house-tumbler pigeons from such selections. In a loft or in the sky, this pigeon performs well. This can be a small version of Turkish or Uzbekian tumblers. Sometimes, from the common tumbler pairs, few progenies show this type of tumbles. Severity of tumbling basically depends on their bloodline. According to Brent (1859) this is a crossbred from tumbler and lotan pigeon [5].

Parlor roller: Origin is noted in the USA and produced from parlor tumblers through selective breeding. In England, they have their own breed, called English short-faced tumbler. In Bangladesh, this pigeon is called 'Turibaz'. This is an auto-roller pigeon and starts roll when released on the ground. At the time of rolling, sometimes 1-2 rolls can be executed in the air. Adult birds cannot fly. Its beak and legs are small and found with numerous colors.

Lotan: Lotan pigeon is an ancient breed of Bangladesh. Actually, this is a crossbred from other rollers [6]. It exhibits roll after shaking between two fingers. Bangladeshi lotans are small in size, peak-crested with self-white or self-red, few are pied (red-white). Recently, in Bangladesh, there are lotans with broad crest and muff called 'Indian lotan' and found only self-white with bull eyes. Their rolls are huge and larger than Bangladeshi lotans and breeding status is mentionable. In the Indian history, lotan pigeons are divided into dasti, kalami, and havai. In Bangladesh, most of the lotans are dasti type. Its physical appearance is somewhat local pigeons and not possible to separate them from the local (gola pigeons) flock of pigeons [8]. To conserve especially Bangladeshi lotan pigeon, this is urgent to rear them separately. Their flight is abnormal, and cannot be tamed easily as other varieties can.



Source: [6,7]



True tumbling patterns are always shown dorso-ventrally. Due to flying ability, they got these characteristics in the sky than the rolls on ground. Pigeon breeders selected their best performing pigeons in order to get many other top-quality

pigeons in this field. Artificial selection did much pressure to create top rollers (many consecutive somersault) and top tumblers (somersault only one or twice) (Table 1; Plate 1).

Table 1. Top tumbler-roller pigeons in the world [7]

Names	Origin	Historical Background	Characteristics
Oriental roller	Asia	1870s	Rolls are ball-like but less than Birmingham rollers
Birmingham roller	England	1500s	Consecutive ball-type rolling in the sky
Kosovo Dunek (Prishtina roller)	Kosovo (Turkey)	19-20 th century; In the year 1981, it got recognition as a separate breed	From oriental roller and finally crossed with indigenous Kosovo pigeons; rotating roller
Dunek roller	Turkey	19-20 th century	Semi-wild bird; its turns in the sky differ from bird to bird; it shows very fast and peculiar rotating (side) at the time of landing
Turkish tumbler/ Takla/Taklaji/Iraqi takla	Turkey	10 th century	Bald-headed; beak-crested or not; short muffed/grouse legged; at the time of landing, it starts tumble again
Uzbekian tumbler	Uzbekistan	1920s	Ancient breed; 8-9 hours flying record; single- or double-crested; muffed; this is heavy bird and makes huge clapping sound during tumbling
Bangladeshi house-tumbler	Bangladesh	Small version of Turkish or Uzbekian tumbler	Huge tumbles in loft and sky
Parlor roller	USA	1850s	Rolls when attempt to fly; this is auto-roller pigeon
Lotan	India	1590, 1886	Medium sized; Bangladeshi breed (small in size; self-white, self-red, piebald/pied; clean legged); Indian lotan (larger, broad crest, muffed; self-white with bull eyes); types are dasti, kalami, and havai; it rolls on the ground after shaking

LIMITATIONS IN TUMBLING PERFORMANCE

Obese pigeons: This is true that oily feed make pigeons obese, so pigeons cannot fly as well as tumble properly. Pigeons need nutritious feed at their various stages of life [9].

Disease: Diseases effect on their tumbling tendency.

Old-age: Due to the old-age of pigeons, for health complications, tumblers or rollers cannot perform in the sky or on the ground.

Non-judicious crossbreeding: Non-judicious crosses between or among tumblers with local pigeons, many pigeons cannot tumble or roll. In addition, when tumbler pigeons fly with local pigeons, gradually tumblers lose their tumbling ability (non-tumbling tumblers) [10]. Selective breeding was a common phenomenon in pigeons from the very beginning [11].

Lack of flying: Some tumbler pigeons are exhibition bird as well [12]. For using them in commercial breeding, sometimes breeders are not used to fly them, so due to lack of flying, pigeons lose their performances. In history, pigeon flying was a great amusement in many parts of the world [13,14].

CONCLUSIONS

Bangladesh is full of many tumbler pigeons [15,16]. The tumbling styles of tumbler-roller pigeons are really an interesting phenomenon in pigeon kingdom. Actually, this activity is not well for them but most people prefer this and selection on these behaviors they created many favorite breeds [11]. In addition, these pigeons are found with many colors with some extra feathers and characteristics. Most pigeon breeders of the world even in Bangladesh have experience to keep these tumbler and roller pigeons. These pigeons can be a suitable avian specimen to know their domestication, connecting or missing links, evolution as well as mutation for various tumbling styles.

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CONFLICT OF INTEREST

None declared.

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