

Principal Tumbler-Roller Pigeons in Bangladesh

Ashraful Kabir*

Department of Biology, Cantonment Public College, Saidpur Cantonment—5311, Nilphamari, Bangladesh

ABSTRACT

Bangladesh is rich with many tumbler and roller pigeons. Divisional cities of Bangladesh especially Dhaka and Rajshahi are the major cities of available tumbler and roller pigeons. Month-wise visits in mentioned pigeon markets of Bangladesh resulted the PCA (principal component analysis) with training set and test set where Vienna short-faced tumbler, komorner tumbler, Dhaka tumbler (produced from Pakistani highflyer), Iranian tumbler, indigenous lotan, parlor roller, and English magpie were mostly preferred out of 21 tumbler-roller pigeons. Further studies need to be noted with sufficient data in future.

Keywords: Tumbler Pigeon, Roller Pigeon, Highflyer Pigeon, Morphometrics, Characteristics, Bangladesh.

INTRODUCTION

Rock-pigeons could have been domesticated for squabs in nesting caves [1]. Pigeon rearing was practiced by the Romans for a very early date and France especially has a long history of keeping pigeon [2]. Greece, Italy, Spain, Germany, Netherlands, and England have dovecote history [3]. The chequer pattern with blue color was common in dovecote pigeons, and this pattern is the result of mutation with wider wing bars and black markings. Darwin [4] described that all species originated from an ancestor by natural selection. It is assumed that there is a neurological defect in tumbler pigeons [5,6]. A problem was found in vestibular apparatus of the inner ear which is the sensory part of the balance mechanism [5]. Subsequently, an abnormality has been found at the junctions between peripheral nerves and skeletal muscle cells in parlor tumblers but this is not considered to be the explanation for their tumbling behavior [6]. Grimshaw [7] and Gilbert [8] also described the tumbler and their performance. The objective of this write-up is to focus the most common tumbler pigeons among other pigeons in the markets.

MATERIALS AND METHODS

Observed pigeons: Total 21-types of pigeons like Vienna short-faced tumbler, komorner tumbler, Dhaka tumbler, Iranian tumbler, indigenous lotan, Indian lotan, parlor roller, English magpie, erlau tumbler, stargard shaker, Turkish tumbler, Hamburg helmet, Serbian highflyer, flying tippler, Uzbek tumbler, Pakistani highflyer, mookkee, German nun, English nun, bald-headed tumbler, and parlor tumbler were observed in the markets of Dhaka and Rajshahi District of Bangladesh.

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*Corresponding Author

Ashraful Kabir,

Department of Biology, Cantonment Public College, Saidpur Cantonment—5311, Nilphamari, Bangladesh,
Phone: +88-01712563750;
E-mail: ashraful.mission@gmail.com

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PCA analysis by RStudio: Principal component analysis (PCA) was used for the data analyses. Out of 11 parameters (weight, wing length, height, beak base thickness, beak length, nape length, neck thickness, tail length, tarsus length, and tarsus thickness) were analyzed with the acceptance of the buyers of such pigeons. For this scientific note, a dataset on 21-types of tumbler pigeons of Bangladesh was used for statistical analyses [9].

RESULTS

Explanation of the results: Out of training set and test set, the SVM (support vector machine) visualized with same-colored dots of pigeons which were common in such markets.

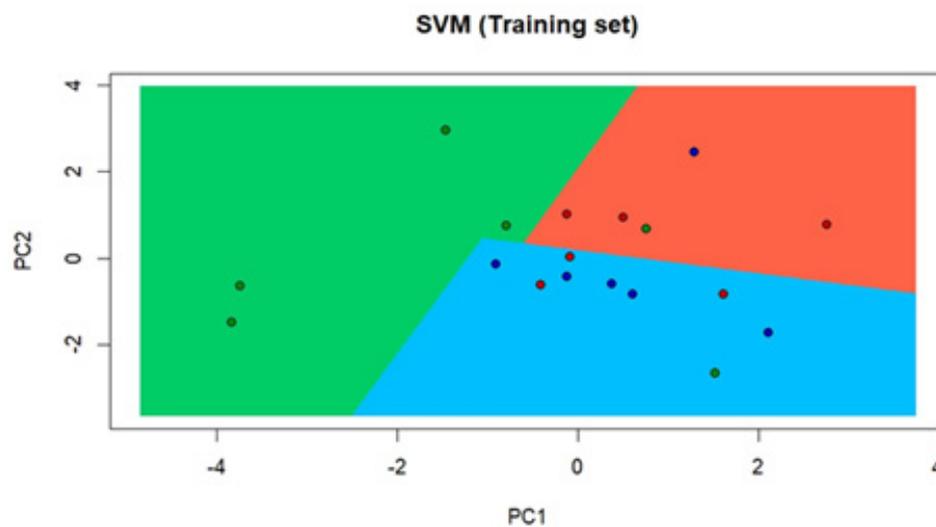


Figure 1. In green area, all dots are green, there are no different dots, so in this group pigeons are more acceptable by the breeders in the market. Blue and red area are mixed with blue and red dots.

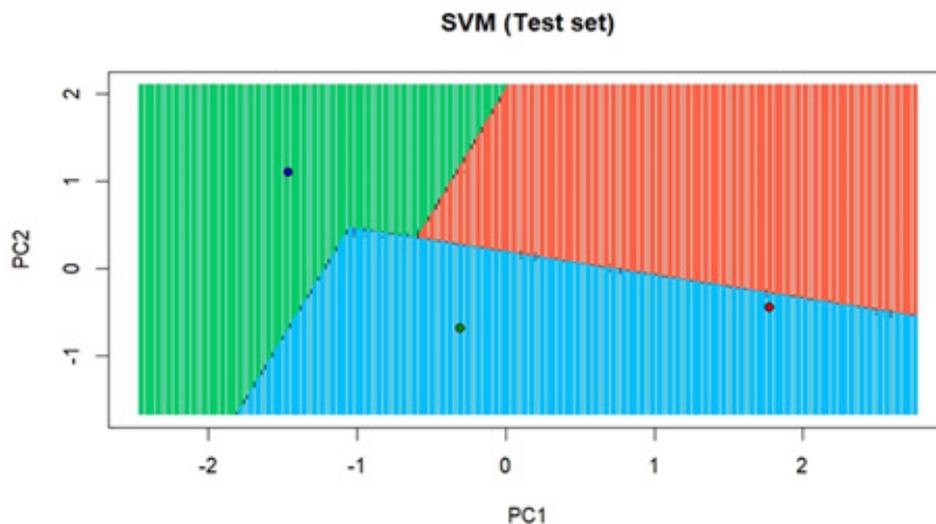


Figure 2. In green area, only one green dot is there. In blue area, there is red dot from the red area, so the blue portion and red portion are not considerable in this case.

Breeders' perceptions about some tumblers/rollers

Huge tumbling of some pigeons supported these findings. Serbian and erlau pigeons are rare in Bangladesh. People do not know enough about these pigeons. Lotans are the

same to the local pigeons, so it can easily mix with local ones. Without shaking, breeders cannot know about this breed, so naturally these pigeons can mate with others and produce different pigeons (genetically mixed).

Table 1. Tumbler/Roller at Dhaka and Rajshahi pigeon markets

Tumbler/Roller Pigeons	Origin	Status in Markets	Characteristics
*Vienna short-faced tumbler	Vienna	Uncommon	Alien-like appearance; tiny and short beak; large, prominent dark-irised eyes; small cubical remarkable head
*Komorner tumbler	Hungary	Common	Very remarkable crest and pied marking
*Dhaka tumbler	Dhaka, Bangladesh	Common	Somewhat Pakistani highflyer but small in size
*Iranian highflyer	Iran	Uncommon	Mid-size beak; sleek feather; staying in the air for many hours
*Indigenous lotan	Bangladesh	Common	Self-white and self-red with peak crest; clean-legged; small in size; rolls after shaking
Indian lotan	India	Common	Self-white with broad crest; muffed; large in size; rolls after shaking
*Parlor roller	USA	Common	Small in size; continuous rolling on the ground after releasing
*English magpie	England	Common	Long head-neck-leg-body; pied marking; pearl eyes
Erlau tumbler	Hungary	Uncommon	Small head; curved head
Stargard shaker	Germany	Common	Tremulous long neck; elongated body and legs
Turkish tumbler	Turkey	Uncommon	Double crested; muffed; abnormal tumbling from the short height
Hamburg helmet tumbler	Germany	Uncommon	Short beak; helmet marking; clean-legged
Serbian highflyer	Serbia	Uncommon	High altitude flying capability
Flying tippler	England	Uncommon	Very nice feather texture; short beak
Uzbek tumbler	Uzbekistan	Uncommon	Single broad crest; huge tumbling pigeon unlike Turkish tumbler
Pakistani highflyer	Pakistan	Common	Big-headed with long neck; posture is somewhat snake-like
Mookee	India	Common	S-marked tremulous neck; small in size
German nun	Germany	Common	Nun-marked face with broad crest; small head and beak; clean-legged
English nun	England	Uncommon	Nun-marked face with broad crest; broad head but small beak; clean-legged
Bald-headed tumbler (gorra in Bangladesh)	Germany and England	Common	White-headed with many colors
Parlour tumbler (English short-faced tumbler)	England	Common	Small in size; interrupted rolling on the ground after releasing

*First priority pigeons at the markets

Used dataset: Pares-Casanova and Kabir [9] used this dataset in a broader way. By using that dataset only PCA was carried out just for knowing the acceptance of tumbler and roller pigeons in the markets on the basis of the following parameters.

Appendix 1. Observed tumblers and rollers in pigeon markets

Weight	Wing_length	Height	Beak_base_thickness	Beak_length	Nape_length	Neck_thickness	Tail_length	Tarsus_length	Tarsus_thickness	Buyer
230	19	18.5	1.1	1.2	4.1	4.3	8.8	2.3	0.6	1
250	18	21	1	1.4	2.9	5.8	10	2.3	0.6	1
280	22.8	19	1	1.6	3.2	5.2	12	2.5	0.6	1
290	24.5	18.9	1.1	1.8	4.8	5.9	12	2.4	0.6	1
290	22	17.7	0.9	1.8	4.9	4.4	11	2.8	0.7	1
290	22.3	15	0.9	1.4	3.7	4.8	12	2.1	0.4	1
300	22.5	18	1.2	2.2	5.2	4	10.4	3.3	0.6	1
300	23.3	20.4	1.1	2	5	3.3	10.2	2.4	0.5	2
300	22	20.3	1	1.4	3.6	4.7	11.2	2.7	0.6	2
300	22.5	28	0.9	2	6.8	4.8	11	2.7	0.6	2
310	22	15.5	0.5	2	4.2	5.3	10	2.1	0.5	2
320	22	22	1	1.5	4.5	5.4	11	2.7	0.6	2
320	23.6	17.5	0.6	1.7	5.5	4.5	12.4	2.5	0.5	2
330	23.3	20.5	1	1.6	4.5	4.1	10.5	2.7	0.6	2
330	23	15	1.1	1.3	4.6	5.2	12.5	2.5	0.7	3
330	23	21	1.1	1.7	5.2	5.4	12.5	3	0.7	3
340	22.6	19.2	1	1.8	4.7	7	11.6	2.4	0.6	3
340	22.7	22.7	1	1.5	3.8	6	11.5	2.5	0.7	3
360	21.7	22.8	1.2	1.6	4	5.5	10.5	2.3	0.6	3
360	23	20.4	1.1	2	4.7	5	11	2.6	0.7	3
400	24	22	1.1	2	5.5	4.9	12.4	2.4	0.5	3

DISCUSSION

Darwin [4] described that all species originated from an ancestor by natural selection, and these tumblers or rollers are not exception in this case. There is a neurological defect in tumbler pigeons [5,6]. A problem was found in vestibular apparatus of the inner ear which is the sensory part of the balance mechanism [5]. An abnormality has been found at the junctions between peripheral nerves and skeletal muscle cells in parlor tumblers [6]. Semi-intensive rearing system is suitable for the proper breeding of lotan pigeons [10]. Colorful highflying pigeons are known as gorra pigeons and most of them were found black-pied [11]. Interbreeding suggested that roller genes (ro) are found in any breeds due to escaping behavior of pigeons as well as non-selective breeding by the breeders. Recently, in Bangladesh, pigeon importers are importing uncommon tumbler pigeons from the abroad.

CONCLUSIONS

Bangladesh is the land of various types of pigeons especially tumblers. From the very beginning, many highflyers were found in Bangladesh. Some highflyers were found in the top height of the sky. From the core of collection, many people are habituated to fly highflyer pigeon, and by the course of time, due to loss of such pigeons, or caught by the predator

birds like falcons, now breeders prefer short height tumbler pigeon not extreme highflyer pigeon. Out of many tumbler/roller pigeons, people choice Vienna short-faced, komorner tumbler, Dhaka tumbler, Iranian tumbler, indigenous lotan, parlor roller, and English magpie mostly for their short height tumbles or rolls and beautiful appearance. Additionally, the price of these pigeons was reasonable at pigeon markets. These pigeons could be significant pigeon breeds for the profit with the fulfilment of the hobby. Considering limitations, need to establish this type of experimental design with sufficient data for more clarification.

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None.

CONFLICT OF INTEREST

There is no conflict of interest.

REFERENCES

1. Hausheer JE. (2026). Where did pigeons come from? The Nature Conservancy. Available at: <https://blog.nature.org/2022/08/09/where-did-pigeons-come-from/>
2. Verschoyle J. (2024). History the pigeoniers of France in perspective. Available at: <https://www.facebook.com/groups/352181896150872>

3. One Foot Forward Team. (2019). Pigeon towers—dovecotes of Andros. Available at: <https://onefootforward.gr/pigeon-towers-dovecotes-of-andros/#:~:text=The%20large%20stone%2Dbuilt%20dovecotes,the%20house%20of%20their%20owners>.
4. Darwin CR. (1959). On the Origin of Species by means of Natural Selection or The Preservation of Favoured Races in the Struggle for Life. John Murray, London.
5. Mowrer OH. (1940). The tumbler pigeon. *Journal of Comparative Psychology*. 30(3):515-533.
6. Entrikin RK, Bryant SH. (1975). Electrophysiological properties of biventer cervicis muscle fibers of normal and roller pigeons. *J Neurobiol*. 6(2):201-212.
7. Grimshaw R. (1922). About parlour tumblers. *American Pigeon Keeper*. 24(5):25.
8. Gilbert RE. (1947). Inheritance of tumbling in parlour tumbler pigeons. MS thesis, University of Utah, Salt Lake City, Utah, United States.
9. Pares-Casanova P-M, Kabir A. (2020). Clustering the tumbler pigeons group on their morphological characteristics reveals a eumetrical and hypermetrical clade. *Bulgarian Journal of Agricultural Science*. 26(3):659-663.
10. Kabir MA. (2014). Management and breeding of lotan pigeon. *Palgo Journal of Agriculture*. 1(1):8-9.
11. Kabir A. (2025). Grading and color genetics of gorra pigeons (*Columba livia domestica*) in Bangladesh: a study on their phenotypic variations and inheritance patterns. *Mathews J Vet Sci*. 9(3):72.