

**SELECTIVE BREEDING OF PIGEONS IN BANGLADESH****M ASHRAFUL KABIR**

Lecturer in Zoology, Cantonment Public School and College, Saidpur Cantonment 5311, District-Nilphamari, Bangladesh

**M ASHRAFUL KABIR****ABSTRACT**

For selective breeding the data shows total eleven types of pigeons. They are categorized in five sections- sporting x sporting, sporting x fancy, sporting x table, table x fancy and fancy x fancy. Within this sporting x fancy were the highest crosses and lowest table x sporting and table x fancy. On this selective breeding tumblers were used in most cases. Because its availability, parental care and colour combination is remarkable than others. Due to hood of capuchine, coarse and short beak of owl, fighting tendency in lotan, short-beak and face of short-faced tumbler all were not good for breeding. Out of 24 crosses there only four were viable for offspring. Homer ♂ x tumbler ♀, lahore ♂ x *C. l. domestica* ♀, lahore ♂ x fantail ♀ and tumbler ♂ x satinette ♀ showed good result in this selective breeding. Most squabs were found large in size. Co-dominant was the common phenomena within all squabs in this study. Wild type head, toed-feather, common length of beak, large body, bright feather, normal tail, good parental care and simple breast were dominant characteristics.

Key words: Selective breeding; Fancy pigeons; Pigeon keeping

Cite this article: M ASHRAFUL KABIR, "**SELECTIVE BREEDING OF PIGEONS IN BANGLADESH**". *Journal of Advanced Studies in Agricultural, Biological and Environmental Sciences*, 2(2): 2015, 1-6

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INTRODUCTION

Rock pigeons have been domesticated for squabs where captivity was the first criterion by the people. From the early date the Rome and France was famous for pigeons keeping. Pigeon rearing attained in 18th century with over 26,000 dovecotes were recorded in England (Alan Whitworth, British Dovecote Society). Pigeon flying was the great amusements in emperor Akbar's time (Blochmann 1873). Famous book 'Origin of Species' by Darwin (1859) described all species originated from an ancestor through natural selection. We knew by 'Variation of Animals and Plants under Domestication' in 1868 by Darwin that in nature the variations within animals are very slow. But the involvements by human such changes have come very quickly. In Syria in 1 BC they first domesticate the animals and there agriculture was more pronounced. Then in Egypt first selective breeding of pigeons were shown by history. That time they tame and used pigeons in various purposes and select for breeding. Later in US, UK and in middle east lot of research is continuing till now. And they are producing a lot of nice and excellent breeds which is important in agriculture, genetics and economics. Harvard University opens a pigeons lab and Shapiro lab in Utah university, USA is one of the most valuable molecular lab for pigeons breeding. DNA analysis is must for detecting the genes' location in pigeons chromosome. The basic colour of pigeons is blue, black and brown. Due to selection, hybridization and mutation on genes lot of various colours were found in fancy pigeons. Large size and exceptional colours are common within fancy pigeons. In world there are above 400 breeds of fancy pigeons.



Materials and Methods

Selected breeds: For the selective breeding in fancy pigeons in Bangladesh the rearers choice capuchine for its hood; owl for feather; lotan for rolling; short-faced tumbler for its small beak and head; homer for endurance of flying and nice parental care; tumbler for parental care, colour combination, flying and availability; *C. l. domestica* for availability; satinette for beak and feather; lahore for its giant size; fantail for expanded tail and pouter for crop (Table 4; Figure 2 and 3).

Types of breeding

In cross breeding when there is no relationship in previous five generations within the pigeons and such type of breeding is very common in Bangladesh. Line breeding defines the crosses between grandfather to granddaughter, grandmother to grandson and cousin to cousin. In-breeding defines mating between father to daughter, mother to son and brother to sister. In-breeding system is good for storage the purity of the breeds (Table 1, 2 and 3; Figure 1).

RESULTS

Table 1. Cross breeding among fancy pigeons in Bangladesh

Male x Female	Squab	Rearers' comments	Where found
homer and tumbler	Mixed	Good foster	Saidpur
capuchine and tumbler	Mixed	Bad foster	Saidpur
homer and pouter	Homer type	Bad foster	Dhaka
homer and <i>C. l. domestica</i>	Large sized	Bad foster	Dhaka
satinette and owl	Mixed	Bad foster	Dhaka
lahore and <i>C. l. domestica</i>	Large-sized <i>C. l. domestica</i>	Good foster	Kushtia
lotan (shaking tumbler) and tumbler	50% both	Bad foster	Kumarkhali
short-faced tumbler and tumbler	Mixed	Bad foster	Saidpur
Indian fantail and tumbler	Slight expanded tail	Bad foster	Kushtia, Saidpur
lahore and Indian fantail	1.both parents blue- blue and slight expanded tail 2. both white parents- white and slight expanded tail	Good foster	1.Bheramara 2.Saidpur
pouter and lahore	Large size and pouter type but crop is not enlarged	Bad foster	Saidpur
tumbler and satinette	Satinette type and irregular breast feathers are 50%	Good foster	Saidpur

Table 2. Crosses between sporting, fancy and table breeds

Pigeons (total used)	Types	Crossed parents	*Crossed type (total number)
homer (3)	sporting	homer x tumbler	S x S (6)
		homer x pouter	S x F (8)
		homer x <i>C. l. domestica</i>	S x T (2)
tumbler (6)	sporting	tumbler x homer	S x S
		tumbler x capuchine	S x F
		tumbler x lotan	S x S



		tumbler x short-faced tumbler	S x S
		tumbler x Indian fantail	S x F
		tumbler x satinette	S x F
Loton (1)	sporting	lotan x tumbler	S x S
short-faced tumbler (1)	sporting	short-faced tumbler x tumbler	S x S
<i>C. l. domestica</i> (2)	table	<i>C. l. domestica</i> x homer	T x S
		<i>C. l. domestica</i> x lahore	T x F (2)
Satinette (2)	fancy	satinette x owl	F x F (6)
		satinette x tumbler	F x S
Owl (1)	fancy	owl x satinette	F x F
Lahore (3)	fancy	lahore x <i>C. l. domestica</i>	F x T
		lahore x Indian fantail	F x F
		lahore x pouter	F x F
Indian fantail (2)	fancy	Indian fantail x tumbler	F x S
		Indian fantail x lahore	F x F
Capuchine (1)	fancy	capuchine x tumbler	F x S
Pouter (2)	fancy	pouter x homer	F x S
		pouter x lahore	F x F

*S=Sporting; F=Fancy; T=Table

Table 3. Summarize of good foster due to co-dominance

Male	Characteristics	Female	Characteristics	Squabs' characteristics
homer	Head-wild type Beak- long Body-elongated	tumbler	Head-wild type Beak- medium Body-round	Head- wild type Beak- medium Body- large Colour- variable
lahore	Head-wild type Leg-grouse Body-large	<i>C. l. domestica</i>	Head-wild type Leg- plain	Head- wild type Leg- plain Body- large
lahore	Head-wild type Leg-grouse Body-large	Indian fantail	Head-crest Leg-grouse Tail- expanded Body-large	Head- wild type Leg- grouse Tail- slight expand Body-large
tumbler	Head-wild type Beak- medium Body-round	satinette	Head-crest Beak- medium Body-round	Head- crested Leg- grouse Body-round

Table 4. Selected pigeons for selective breeding

Pigeons	Selected for	Selected points
homer	size, stamina, flying	3
tumbler	tumbling, flying, availability, colour	4
lotan	rolling	1
short-faced tumbler	short-face, beak	2
<i>C. l. domestica</i>	availability	1
satinette	feather	1
owl	feather	1



lahore	size, colour	2
Indian fantail	tail, muff	2
capuchine	hooded crest	1
pouter	enlarge crop, size	2

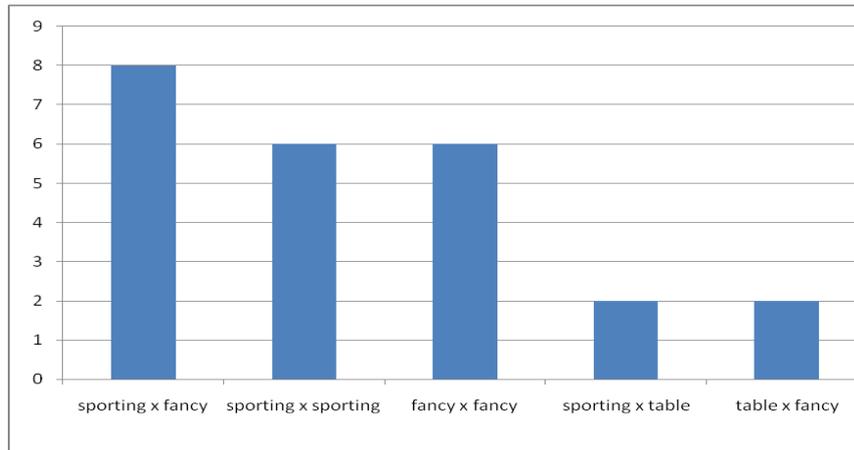


Figure 1. Crosses between such fancy pigeons

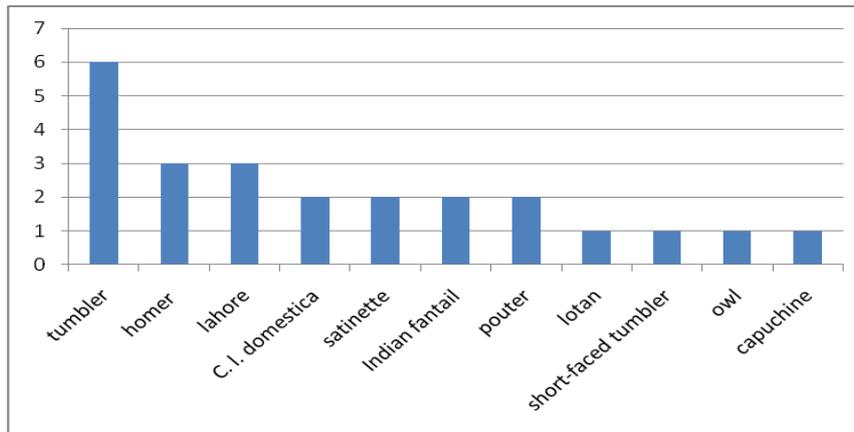


Figure 2. Total number of fancy pigeons in selective breeding

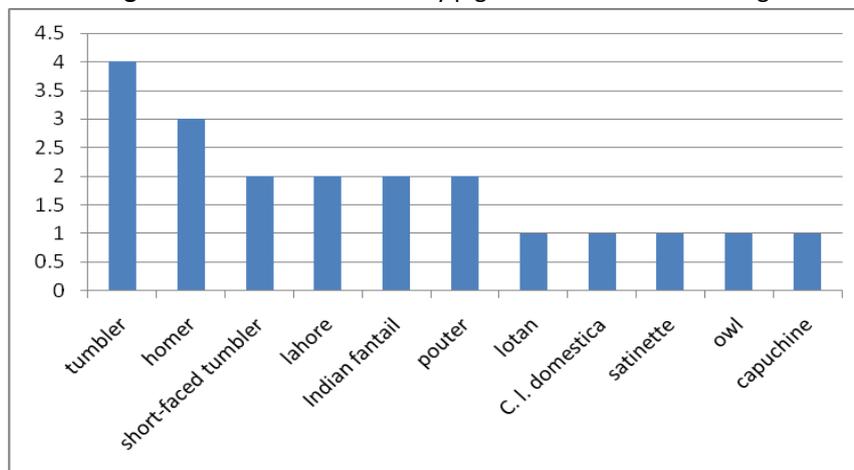


Figure 3. Pigeons and its points for selective breeding

**DISCUSSION**

After domestication of the wild rock pigeons then gradually thousands of millions selective breeding have focused a lot of nice fancy pigeons of the world. Broiler breed king is originated from duchess, homer, maltese and runt (Levi 1941, p 100). Crosses among dove-cote, carrier and dragoon produced runt in USA (McNeillie 1993, p 68). Lark is another type of fancy pigeon with long beak produced by archangel and Bagdad (Levi 1941, p 107). Crosses between florentine x field pigeons (Levi 1941, p 179) and Dutch cropper x horseman pouter the strasser and English pouter breed evolved (Levi 1941, p 145). Magpie is basically tumbler and in ancient there some expanded and erected tailed-tumblers which might be an origin of modern fantail (Lyll 1981). McNeillie (1993, p 66, 78) mentioned in his book 'pigeons of the world' that dragoon originated from carrier x pouter and maltese from German variety x owl. After jacobin and fantail their half-breeds are capuchine and mookie (Lyll 1981). Oriental or Turkish frills are invented by crossing between turbit and owl in Turkey (McNeillie 1993, p 110). Breeding in various broiler pigeons were made by Hazard in 1922 in his book profitable pigeon breeding. Some crosses between roller and tumbler pigeons with their progenies tumbling performance were completed by Enrikin and Erway 1972; Kabir 2012. In world the tumblers, rollers and highflyers are maximum (Kabir 2015) and this pigeons are very ancient and most popular to the people (Kabir 2015). From the Akbar dynasty there was a hobby for pigeons flying and in Akbar's court there happened selective breeding of various fancy pigeons (Blochmann 1873) and this time most of the fancy pigeons were tumblers (Kabir 2014). Management of lotan pigeons and its breeding is common in most places for its acceptability in Bangladesh (Kabir 2014). For selective breeding sexing is important and commonly phenotypic method could apply (Kabir 2014). Productivity and management in fancy pigeons in several pet shops were remarkable by selecting nice pair for better squab (Kabir 2013). By understanding the background of the genes of pigeons need to ensure the genetic code with evolution is important for ensuring molecular studies which deals or leads new variety (Baptista et al 2009).

Conclusion

In Bangladesh the number of fancy pigeons with its viability and parental care is good. Gradually we are getting nice colour combination in pigeons. Moreover, we are losing the flying and tumbling capability in tumbler pigeons due to less fly in the sky and predator birds. Ultimately we have lost those nice tumbler pigeons. But hopefully we tell that the fancy pigeons are increasing day by day and it helps in our economy. Lack of proper breeding knowledge in pigeons many pigeon lovers are losing the purity of those nice pigeons. Homer and tumblers are the best for fostering squab. So, if we improve these two varieties by selective breeding between its original characteristics it will be better for the fancy pigeons reproduction. Great stamina, feather quality, good body structure and parental care are the precursor for better selective breeding. Always collect those breeding purpose pigeons from renowned sources. During the time of collecting pigeons try to know the parents, grand parents and great parents information. In Bangladesh mainly there is no remarkable selective breeding report in fancy pigeons because there some good pigeons importers are here who collect class one breeding pigeons from abroad.

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