

BEHAVIOR DIFFERENCES BETWEEN ARTIFICIALLY HATCHED PHEASANTS FROM WILD PARENTS OR FARM PARENTS

Profumo A., Bagliacca M.*, Santilli F., Mazzoni R.**
 Dipartimento di Produzioni Animali, Università di Pisa
 *Tecnico Faunistico
 **Ann. Provinciale di Siena

Key words: pheasant, behavior, genetic.

■ INTRODUCTION

The purpose of this study was to investigate whether genetic differences can influence pheasant's fear since the capacity of animals of adopting to a new habitat, can depends on imprinting and training, but also on their genetic pattern.

■ MATERIALS AND METHODS

Two groups of adult pheasants (150 days old) were subjected to behavioral tests (Bryan Jones R., 1996). The first group BREED was born of pheasants always artificially reared and the second group WILD was born of wild captured pheasants. The following behavioral tests were performed: Tonic immobility test: pheasants were placed on their backs for 20 seconds, after wich the time each pheasant took to wake up and to begin to move was measured. Metronome test: after 24 hours of fasting feed was given with a timer hidden in the feed, the time each pheasant spent after beginning to eat was measured. Novel object test: after 24 hours of fasting, the feeder was given with a cable on the feed surface, the time each pheasant spent after beginning to eat was measured. Escape test: each pheasant was moved to a big flight pen set up with bushes formed as a passage, each animal was released from a box at the beginning of this passage and the distance between the flying or escaping pheasant and the operator at the end of the passage was measured. Escape distances were directly analy-

zed, while times were previously transformed in its reciprocal values (times longer then 60 minutes were considered boundless). The results were analyzed by the following model: $Y_{ijk} = \mu + Stock_i + Sex_j + Stock * Sex_{ij} + c_{ijk}$ (Lehner, 1985).

■ RESULTS AND DISCUSSION

Some tests underlined different behaviors between males and females as also WILD and BREED, tab. 1.

The Novel Object Test confirmed the different behavior between males and females ($p < 01$), males were more aggressive against unknown small things like in wildlife. BREED males, spend less time in reaching the feeder than WILD males ($p < 05$).

The Metronome test shows that male subjects reach the feeder before the females, as usually observed in wildlife, but WILD males waited more time to reach the feeder than BREED males; and BREED females never reached the feeder. The Escape and the Tonic Immobility tests did not show significant differences.

■ CONCLUSIONS

Animals with different genetic patterns, even being bred in the same conditions seem to show different behaviors. Natural selection can select pheasants with different behavior from pheasants selected in farming conditions.

Test		Males		Females		Males		Females	
		BREED	WILD	BREED	WILD	BREED	WILD	BREED	WILD
	n.	10	5	10	15	15	15	15	
Novel Object	Sec	3.9 a	7.8 b	172.4	35.7	5.2 A	59.2 B	7.7	12.8
Tonic Immobility	"	0.05	0.16	0.16	0.22	0.08	0.18	0.08	0.18
Metronome	"	31.3 a	51.5 b	∞ a	87.0 b	39.0 A	173.9 B	62.7	64.7
Escape distance	m	1.63	3.18	3.97	2.47	2.40	3.22	2.80	2.82

Note: means bearing different letters significantly differ (cursive $P < 05$, capital $P < 01$)

Table 1. Behavior parameters measured during the trial.

REFERENCES

Available from the Authors