

## DETERMINATION OF SOME CORPORAL INDEXES AT GREAT ALEXANDER PARAKEETS

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### Abstract

Research of the current study aimed to establish, based on body dimensions, some corporal indexes considered to be representative for Great Alexander parakeets. Determinations were carried out on a total number of 60 individuals (separate on females, males and both sexes), raised in three aviary farms from Moldova and which were noted in a symbolic way with L1, L2 and L3. The main corporal indexes calculated were: pectoral muscles development index, skeleton index and compactness index. Pectoral muscles development index presented the highest values, of  $82.54 \pm 1.53$  in L1 aviary, followed by L3 aviary, with  $82.44 \pm 1.12$  and by L2 batch, with  $80.11 \pm 1.88$ . The average value of compactness index oscillated, in both genders, between  $148.01 \pm 2.83$  in L2 batch and  $148.17 \pm 3.39$  in L3 batch with intermediate value of  $148.17 \pm 3.39$  in L1 batch. Skeleton index oscillated, for both genders, between  $68.61 \pm 1.79$  in L1 batch and  $69.41 \pm 1.90$  in L2 batch. The obtained results are from a large series of research and aimed to develop the knowledge area regarding this category of birds.

**Key words:** corporal indexes, determinations, parakeets, Great Alexander, corporal dimensions

### INTRODUCTION

One of the keys in fighting loneliness and isolation feelings, as well one of the most effective method to distract from daily thoughts and stressful life is having an animal companion in our houses [4].

Among many creatures adopted by humans, the birds are on the first place, because they require less room for accommodation, minimal expenses and care, less and easily to achieve feed [1] [2].

The Great Alexander parakeet (*Psittacula Eupatria*) is one of the most beloved companion birds, both for its intelligence and for its imposing attitude, the vivid feathering coloration and the ability to imitate the human voice [3].

Therefore, counting on the satisfaction brought by these small winged creatures to their human companions, we proposed, through our dissertation, to provide to the many enthusiasts' original regarding the corporal indexes of Great Alexander parrot breed.

### MATERIAL AND METHODS

The investigations comprised 60 individuals of Great Alexander parakeet, equally distributed in the three aviaries, respectively 20 individuals/batch (10 females and 10 males); the specimens presented the same age and proper health.

The corporal indexes were calculated with the following formulas:

- Pectoral muscles development index (P.M.D.I.):

$$\text{P.M.D.I.} = \frac{\text{length of sternal hull} \times 100}{\text{length of trunk}}$$

Compactness index (C.I.):

$$\text{C.I.} = \frac{\text{thoracic perimeter} \times 100}{\text{length of trunk}}$$

Skeleton index (S.I.):

$$\text{S.I.} = \frac{\text{shin - bone perimeter} \times 100}{\text{thoracic perimeter}}$$

To establish the significance difference between means was effectuated the variance analysis through ANOVA mono-factorial method.

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**RESULTS AND DISSCUSIONS**

The *pectoral muscles development index* presented the highest values, of 82.54±1.53 in L1 aviary, followed by L3 aviary, with 82.44±1.12 and by L2 batch, with 80.11±1.88. The homogeneity of the trait was good (V%=4.29-7.42), hence the lack of statistic differences between batches.

The average value of *compactness index* oscillated, in both genders, between

148.01±2.83 in L2 batch and 148.17±3.39 in L3 batch with intermediate value of 148.17±3.39 in L1 batch. No statistical differences occurred and the variability was low (V%=6.06-7.24).

*Skeleton index* oscillated, for both genders, between 68.61±1.79 in L1 batch and 69.41±1.90 in L2 batch. No statistical significance occurred between batches.

Table 1 Corporal indexes of Great Alexander parakeet

| Specification                      | Groups                                   | n  | $\bar{X} \pm S_{\bar{X}}$ | V%   | Min.   | Max.   |
|------------------------------------|--|--|---------------------------|------|--------|--------|
| Pectoral muscles development index | L1                                       | 20   | 82.54±1.53                | 5.88 | 72.89  | 92.54  |
|                                    | L2                                       | 20   | 80.11±1.88                | 7.42 | 64.00  | 88.48  |
|                                    | L3                                       | 20   | 82.44±1.12                | 4.29 | 75.38  | 86.26  |
|                                    | Statistical significance between batches | L1 vs. L2 = n.s.; $\hat{F}$ (2.0077) < $F_{\alpha}$ (4.4138) for 1:38 GL<br>L1 vs. L3 = n.s.; $\hat{F}$ (2.2782) < $F_{\alpha}$ (4.4138) for 1:38 GL<br>L2 vs. L3 = n.s.; $\hat{F}$ (0.0051) < $F_{\alpha}$ (4.4138) for 1:38 GL |                           |      |        |        |
| Compactness index                  | L1                                       | 20   | 148.17±3.39               | 7.24 | 134.16 | 168.61 |
|                                    | L2                                       | 20   | 148.01±2.83               | 6.06 | 133.04 | 167.31 |
|                                    | L3                                       | 20   | 148.67±3.26               | 6.94 | 132.19 | 165.41 |
|                                    | Statistical significance between batches | L1 vs. L2 = n.s.; $\hat{F}$ (0.0027) < $F_{\alpha}$ (4.0068) for 1:38 GL<br>L1 vs. L3 = n.s.; $\hat{F}$ (0.0468) < $F_{\alpha}$ (4.0068) for 1:38 GL<br>L2 vs. L3 = n.s.; $\hat{F}$ (0.0224) < $F_{\alpha}$ (4.0068) for 1:38 GL |                           |      |        |        |
| Skeleton index                     | L1                                       | 20   | 68.61±1.79                | 8.27 | 58.86  | 79.69  |
|                                    | L2                                       | 20   | 69.41±1.90                | 8.65 | 59.50  | 80.72  |
|                                    | L3                                       | 20   | 68.76±1.64                | 7.58 | 61.09  | 78.19  |
|                                    | Statistical significance between batches | L1 vs. L2 = n.s.; $\hat{F}$ (0.1859) < $F_{\alpha}$ (4.0981) for 1:38 GL<br>L1 vs. L3 = n.s.; $\hat{F}$ (0.1336) < $F_{\alpha}$ (4.0981) for 1:38 GL<br>L2 vs. L3 = n.s.; $\hat{F}$ (0.0072) < $F_{\alpha}$ (4.0981) for 1:38 GL |                           |      |        |        |

**CONCLUSIONS**

*Pectoral muscles development index* presented the highest values, of 82.54±1.53 in L1 aviary, followed by L3 aviary, with 82.44±1.12 and by L2 batch, with 80.11±1.88.

The average value of *compactness index* oscillated, in both genders, between 148.01±2.83 in L2 batch and 148.17±3.39 in L3 batch with intermediate value of 148.17±3.39 in L1 batch.

*Skeleton index* oscillated, for both genders, between 68.61±1.79 in L1 batch and 69.41±1.90 in L2 batch.

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