



ABSTRACTS

TI: ANALYSIS OF EXTERIOR INDICES OF POLISH KONIK HORSES FROM PRESERVATION BREEDING CENTRES AND USED IN HIPPO THERAPY

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LA: Polish

AB: The aim of this study was to analyse exterior indices of Polish Konik horses from preservation breeding centres as well as indices of this breed used in hippotherapy. The study was conducted in five leading preservation breeding centres with this breed in Poland. For each of 172 Polish Konik specimens, 40 conformation indices were calculated. The horses were divided into two groups based on gender. Statistical analysis showed significant differences between the sexes in a number of mean values of indices. No disproportions were found – regarding values of the analyzed indices – between the verified breeding population of Polish Konik horses and the horses of this breed used in hippotherapy centres.

DE: Polish Konik breed, exterior indices, hippotherapy

SO: Zesz. Nauk. UP Wroc., Biol. Hod. Zwierz., LXVII, 591: 9–22.

TI: INFLUENCE OF SELECTED PLANT PROTECTION PRODUCTS ON VITALITY OF HONEY BEE

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AB: The aim of the study was to evaluate the effect of plant protection products on vitality of *Apis mellifera*. The study was conducted in laboratory conditions. Bees were kept in cages and fed sugar syrup with additions of chosen plant protection products. The results showed that insecticidal formulations such as Proteus 110 OD and Mospilan 20 SP are the most toxic to bees. They caused mortality exceeding 60%. Whereas Topsin M 500SC, which is classified to fungicide formulations, appeared to be the least harmful. Tested herbicides (Kosmik 360 SL and Sekator 125 OD) were less toxic for *Apis mellifera* while food intake in these groups was the highest. The lowest food intake was in group with Proteus 110 OD supplementation. The results of experiment showed that in recent years it has been very important to continuously monitor the influence of different plant protection products on apifauna.

DE: blood plasma and cells, bone protein, hens, performance, egg quality, cystatine, lysozyme, antitrypsin activity

DE: chemical plant protection products, insecticides, fungicides, herbicides, honey bee, poisoning, mortality

SO: Zesz. Nauk. UP Wroc., Biol. Hod. Zwierz., LXVII, 591: 23–34.

TI: THE EFFECT OF AGE ON DORSAL SURFACE TEMPERATURE OF HALF-BRED MARES

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AB: The aim of the study was defining the correlation between the age and the body surface temperature of the horses. The study was conducted in Prudnik Stud on the 34 half-bred mares aged 1 to 20 years. Thermography camera was applied for the body superficial temperature measurements of the following areas: thoracic vertebrae, lumbar vertebrae, sacroiliac joints, left and right side of the thoracic vertebrae, left and right side of the lumbar vertebrae. Statistically significant temperature correlation between the age and the dorsal superficial temperature distribution of thoracic vertebrae, the left and right side of thoracic vertebrae and the lumbar vertebrae have been proved. The yearlings compared with group of the older mares, had decreased of the dorsal superficial temperature distribution on the average of 1.0°C, except the lumbar vertebrae and the sacroiliac joints area. The dorsal surface temperature distribution increases with age.

DE: temperature, dorsal body surface, thermography, age, mares

SO: Zesz. Nauk. UP Wroc., Biol. Hod. Zwierz., LXVII, 591: 35–40.

TI: SPERM MORPHOMETRY OF SIX POLISH DUCK CONSERVATIVE FLOCKS

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AB: Spermatozoa are one of the most varied animal cells both, in form and dimension. They also differ between and within particular avian species. It is thought that sperm is under strong selective pressure and the sperm competition may be an evolutionary force driving the diversification of sperm design and function. Majority of waterfowl species are mostly monogamous, with a generally low frequency of social polygamy and the risk of the sperm competition is expected to be low. However there is a large frequency of forced extra-pair copulations resulting in sexual conflict. The female vagina of several waterfowl species anatomically can block and delay eversion of drake penis inside vagina in case of forced copulations. Females of wild populations of mallard ducks (*Anas platyrhynchos* L.) resist all extra pair copulations. The mate guarding during fertilization period also takes place in this species. This fact suggests the occurrence of slight differences in ducks spermatozoa traits. In the present research the characteristics and comparison of the sperm size of six (LSA, K2, Kh0-1, P8, P9, P33) conservative flocks of mallard ducks (*Anas platyrhynchos* var. *domestica*) were conducted. Obtained results indicated the significant ($P \leq 0.01$) differences in sperm length between examined duck strains. The spermatozoa of strain Kh0-1 were characterized by the largest sizes, while the miniducks K2 produced the smallest sperm. The differences between strains P8, P9 and P33 were smaller comparing to Kh0-1, K2 and LSA.

DE: ducks, sperm morphometry, comparative study

SO: Zesz. Nauk. UP Wroc., Biol. Hod. Zwierz., LXVII, 591: 41–48.