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ABSTRACTS

TI: ARTHROPODS (*SIPHONAPTERA*, *ANOPLURA*, *ACARI*, *COLEOPTERA*) OF SMALL MAMMALS OF EAST SUDETES AND EAST PART OF MIDDLE SUDETES

AU: Haitlinger R.

AD: Department of Zoology and Ecology, Wrocław University of Environmental and Life Sciences

LA: English

AB: 2934 arthropods belonging to 89 species were obtained from 17 species of small mammals: 2407 Acari at least of 69 species, 201 Anoplura of 5 species, 313 Siphonaptera of 15 species and 13 Coleoptera of one species. *Schizophthirus jaczewskii*, *Neopodocinum mrciaki*, *Myonyssus decumani*, *Echinonyssus carnifex*, *E. talpae*, *Eadiea brevihamata*, *Labidophorus talpae* and *Lophioglyphus liciosus* are recorded for the first time from Sudetes. The richest arthropod fauna (62 species) was found on the small mammals from Stołowe Mts. Most species (45) were collected on *Clethrionomys glareolus*.

DE: Siphonaptera, Anoplura, Acari, Coleoptera, mammals, Sudetes, faunistic

SO: Zesz. Nauk. UP Wroc., Biol. i Hod. Zw., 2006, LIV, Nr 548, 7–34.

TI: NEW RECORDS OF MITES (*ACARI*: *PROSTIGMATA*: *ERYTHRAEIDAE*, *EUTROMBIDIIDAE*, *TROMBIDIIDAE*, *CHYZERIIDAE*, *LEEUWENHOEKIIDAE*) FROM GREECE

AU: Haitlinger R.

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LA: English

AB: *Abrolophus pseudolongicollis kiejstuti*, *Hauptmannia podorasensis*, *Bursaustium gaspari*, *Erythraeus* (*Z.*) *preciosus*, *E. (Z.) budapestensis*, *Leptus* (*L.*) *josifovi*, *Balaustium nikae*, *Alolthrombium fuliginosum* and *Paravenhoekia dectici* are new to the forms of Greece. Seven other species were known only from single locations.

DE: Acari, Prostigmata, Erythraeidae, Eutrombidiidae, Trombidiidae, Chyzeriidae, Leeuwenhoekiidae, faunistic, Greece

SO: Zesz. Nauk. UP we Wroc., Biol. i Hod. Zw., 2006, LIV, Nr 548, 35–42.

TI: ARTHROPODS OCCURRING ON *MUS MUSCULUS* LINNAEUS, 1758 (*MAMMALIA*: *RODENTIA*: *MURIDAE*) IN POLAND.

AU: Haitlinger R., Turek M.

AD: Department of Zoology and Ecology, Wrocław University of Environmental and Life Sciences

LA: English

AB: In 1969–2005, 237 specimens of *Mus musculus* were obtained from different localities in Poland from which 83 specimens of Siphonaptera (6 species), 40 specimens of Anoplura (3) and 514 specimens of Acari (50) were collected. Total number of arthropod species found hitherto on *M. musculus* in Poland amount 99 species (including species mentioned in literature). *Listrophorus meridionalis* is new to the fauna of Poland. The most numerous species on *M. musculus* in Poland are: *Myocoptes musculus*, *Listrophorus* sp., *Leptopsylla segnis*, *Proctolaelaps pygmaeus*, *Listrophorus meridionalis* and *Myobia murismusculi*. Check lists for biological groups of arthropods found on *M. musculus* are given.

DE: *Mus musculus*, Siphonaptera, Anoplura, Acari, Poland

SO: Zesz. Nauk. UP Wroc., Biol. i Hod. Zw., 2006, LIV, Nr 548, 43–57.

TI: THE FINANCIAL ANALYSIS PRODUCTION OF PIGS BREEDING

AU: Knecht D., Jakubus B.

AD: Department of Pig Breeding, Wrocław University of Environmental and Life Sciences

LA: Polish

AB: The financial analysis production on farm confirm that market of pigs is unstable. Low production profitability requires lower very high cost of animals feeding and choice profile of production accommodate to concrete requirements receivers breeding material.

DE: pig slaughter production, financial analysis

SO: Zesz. Nauk. UP Wroc., Biol. i Hod. Zw., 2006, LIV, Nr 548, 59–67.

- TI: BIRD ASSEMBLAGES IN NATURAL AND URBANIZED HABITATS IN MORIJA AREA, LESOTHO
 AU: Grzegorz Kopij
 AD: Department of Zoology and Ecology, Wrocław University of Environmental and Life Sciences
 LA: English
 AB: Quantitative studies were conducted during the years 1999-2001 in the Morija area, western Lesotho, southern Africa, which is the oldest town in this country. The line transect method was employed to assess the dominance of bird species associated with two habitat types: the urbanized environment and indigenous bush covering slopes below the sandstone Clarens Formation. The total length of transect in the former habitat was 3 km, while in the latter one it was 8 km. In the urbanized environment of Morija, a total of 29 bird species were recorded. Eight species, namely *Streptopelia capicola*, *S. senegalensis*, *S. semitorquata*, *Columba guinea*, *Lanius collaris*, *Onychognathus morio*, *Pycnonotus nigricans* and *Serinus canicollis*, were dominants. Together they composed 72.4% of the total number of pairs recorded. In the indigenous bushy vegetation 44 bird species were resident. Eight of these, namely *Serinus canicollis*, *Prinia maculosa*, *Zosterops pallidus*, *Cisticola fulvicapilla*, *Pycnonotus nigricans*, *Emberiza capensis*, *Salsolincola coryphaeus* and *Cossypha cafra* were classified as dominant (Table 2). Together the dominants composed over half (51.7%) of the total number of pairs recorded. A total of 22 species were common for both habitats compared. Sixteen species regarded as rare in Lesotho have been recorded in the Morija area.
- DE: bird communities, grasslands, urban ornithology, Lesotho.
 SO: Zesz. Nauk. UP Wroc., Biol. i Hod. Zw., 2006, LIV, Nr 548, 69–77.
- TI: HERBARIUM OF H.G. VON MATTUSCHKA AS SOURCE OF HISTORY OF CULTIVATION OF FODDER PLANTS ON LOWER SILESIA: CORN, POTATOES AND FABA BEAN
 AU: Łuczak W.¹, Chudoba K.²
 AD: ¹ Department of Animal Nutrition and Feed Science, Wrocław University of Environmental and Life Sciences
² Department of Sheep and Fur Animals Breeding, Wrocław University of Environmental and Life Sciences
 LA: Polish
 AB: Authors describe history of 3 fodder plants: corn, potatoes and faba bean, they are known in animal nutrition on Lower Silesia from XVIII century. The base were manually painted in historic herbarium of H.G. von Mattuschka.
- DE: herbarium, corn, potatoes, faba bean, history
 SO: Zesz. Nauk. UP Wroc., Biol. i Hod. Zw., 2006, LIV, Nr 548, 79–86.
- TI: EFFECT OF FEED SUPPLEMENTATION WITH ORGANIC SELENIUM AND VITAMIN E ON
 AU: GROWTH RATE AND MATURATION OF JAPANESE QUAILS (*Coturnix japonica*)
 AD: Łukaszewicz E., Jerysz A., Małaniuk P.
 Department of Poultry Breeding, Wrocław University of Environmental and Life Sciences
 LA: English
 AB: Effect of feed supplementation with organic selenium and vitamin E on body weight gain, growth rate and age of maturity of Japanese quails was evaluated. Two groups of quails (100 birds each) were fed, from the day of hatch up to the end of rearing period, with basic feed for growing quails (the control group) and feed supplemented with 0,3 mg/kg of selenium (as Sel-Plex™, Alltech LTD, USA) and 100 mg/kg of vitamin E (E-50 Adsorbate, Rolimpex S.A.) (the experimental group). In both groups, the body weight gain, growth rate and female maturity age were on the similar level, while the rate of male maturation was slightly bigger in the experimental group however, existing differences were not significant.
- DE: Japanese quail, selenium, vitamin E, rate growth, maturation
 SO: Zesz. Nauk. UP Wroc., Biol. i Hod. Zw., 2006, LIV, Nr 548, 87–97.
- TI: EFFECT OF FEED SUPPLEMENTATION WITH ORGANIC SELENIUM AND VITAMIN E ON QUANTITATIVE AND QUALITATIVE CHARACTERISTICS OF JAPANESE QUAILS (*Coturnix japonica*) SEMEN
 AU: Małaniuk P., Łukaszewicz E.
 AD: Department of Poultry Breeding, Wrocław University of Environmental and Life Sciences
 LA: Polish
 AB: Effect of feed supplementation with organic selenium and vitamin E on quantitative and qualitative characteristics of Japanese quail (*Coturnix japonica*) semen was evaluated. Six months old quail males were used as semen donors. From the day of hatch till the end of the experiment males from the control group (20 birds) were fed with basic feeds, while these of experimental group (20 birds) with feed supplemented with 0,3 mg/kg of organic selenium (as selenium yeast, Sel-Plex™, Alltech LTD, USA) and 100 mg/kg of vitamin E (200 mg/kg of E-50 Adsorbate (Rolimpex S.A.)). Semen was collected twice a week by male stimulation by female. In freshly collected semen samples there were evaluated: pooled and individual ejaculates volume, color, consistency, spermatozoa concentration and morphology. Selenium and vitamin E addition did not

affect positively the ejaculates volume and sperm concentration. In the control group both traits were on the higher level, first of them differ significantly ($P \leq 0.01$). However, increased level of organic selenium and vitamin E affect positively and significantly ($P \leq 0.01$) the morphological picture of quail spermatozoa, particularly the percentage of live morphologically normal cells (47.0 vs. 38.7). The number of deformed cells was also lower in semen of the experimental group.

DE: Japanese quail, selenium, vitamin E, semen quality

SO: Zesz. Nauk. UP Wroc., Biol. i Hod. Zw., 2006, LIV, Nr 548, 99–109.

TI: THE ESTIMATION OF HONEY YIELD AND SOME BIOLOGICAL TRAITS IN CARNIOLAN BEES CROSSBREDS (*APIS MELLIFERA CARNICA*)

AU: Roman A., Góra M.

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Polish

LA: Aim of this work was to compare the honey yield and some biological traits evaluated in Carniolan which were, 2-line crossbreeds of the following breeding lines: Austrian (Ca), Peschetz (Cp), Rumanian (Cr) and pogórska (Cb) in the configurations CpCa, CrCp, CaCp, CrCa, CrCp. Honey yield was crucial for the study, whereas swarming tendency, build-up of a colony, gentleness and overwintering ability composed additional criteria. The honey yield was estimated on the basis of honey weight (in kg) in season time. The biological traits were determined according to classification in 4 points scale (with 1 as the worst result, and 4 as the best one). The study showed that average honey yield for all bee colonies amounted together 30.4 kg in local estimation and 28.9 kg in control estimation. It's important to point out, that the lowest seasonal honey yield - the average on the level of 21.7 kg, have showed CpCa crossbreeds, and the highest CrCp crossbreeds - 46.1 kg, in both cases in local estimation. The CrCp hybrids were first in the point classification of gentleness, with 3.5 points. Simultaneously CrCp appeared as weakest, in regard of overwintering ability, with 3.4 points. The CpCa, CrCa and CrCb crossbreeds showed very good overwintering ability, with the highest estimation of 3.8 points. The crossbreeds of CrCa i CrCb had also proved to be least swarming, with the value of 3,7 pkt. CrCb crossbreeds had been distinguished by their colony build-up dynamic in the spring time with 3.8 points. The study showed, that interline crossbreeds of Carniolan bees are well adapted to local climatic and foraging conditions of south-west Poland.

DE: Honeybees, Carniolan bees, crossbreed, honey yield, swarming tendency, colony build-up, gentleness, overwintering ability

SO: Zesz. Nauk. UP Wroc., Biol. i Hod. Zw., 2006, LIV, Nr 548, 111–123.

TI: INFLUENCE OF THE PLANT SPECIES NUMBER FORAGING BY BEES (*APIS MELLIFERA* L.) ON THE MASS OF ACCUMULATED POLLEN

AU: Roman A., Pasięka M.

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Polish

LA: The purpose of the study was to learn how the number of plants species visited by foragers influenced the pollen yield. Another objective was to find out if there is a relationship between the number of plant species visiting foragers and the amount of the hoarded pollen. The study was conducted in July, in two successive years (2004 and 2005) in a stationary apiary, in 10 bee colonies. The amount of hoarded pollen was definite from the mass of pollen loads collected by means of pollen traps with shaking plate with eyelets of 5.00 mm diameter. The pollen grains shapes were characterized by the scanning microscope and on this base one qualified families and species plant, which were visiting by bees. The average daily pollen loads collection from one bee colony amounted 11.59 g in 2004 and 17.02 g in 2005. Average yield of pollen collected from individual colonies at that time amounted from 1.29 g/day (colony 9) to 30.62 g/day (colony 7) and from 0.98 g/day (colony 6) to 56.93 g/day (colony 8) in the first and second year of the study, respectively. The study showed that bees visited different number of plant species on individual days. In 2004 they visited on average 4.0 species (from 2.6 to 4.7), but, in 2005 - on average 4.4 plant species in the course by day (from 2.90 to 5.30). Statistically significant correlations between the number of daily visited plant species and the pollen yield was indicated only by 40% of bee colonies.

DE: honeybee, pollen loads, pollen yield, pollen trap, floromigration, floral fidelity

SO: Zesz. Nauk. UP Wroc., Biol. i Hod. Zw., 2006, LIV, Nr 548, 125–136.