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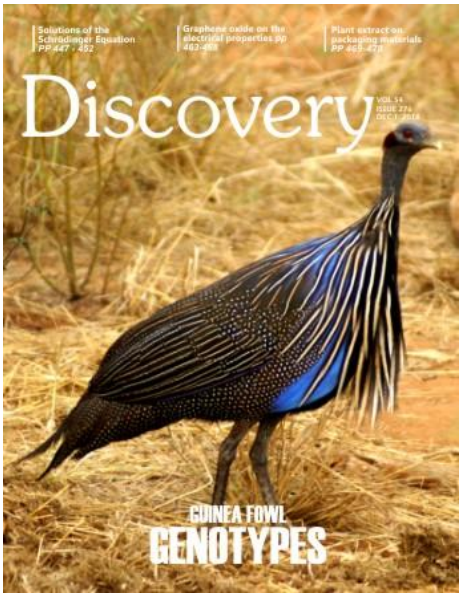
Discovery

About the Cover



ABOUT THE COVER

The objectives of this study were to determine the phenotypic correlations among body weight and linear body parameters (LBPs) of the black and pearl guinea fowl and their crosses, as well as to derive multiple regression equations that can be used to establish models for predicting body weight. The following three genotype groups were established: Pearl male X pearl female (P X P) Homozygous pearl thorough bred line; black male X black female (B X B) Homozygous black thorough bred line and Black male X pearl female (B X P) Heterozygous crossbred line. A total of 317 guinea fowl keets were obtained and used for the study. There were 100 PXP, 118 BXB and 99 BXP keets. The coefficient of determination of body weight by linear body measurements was generally significantly ($P < 0.001$) high between 8 and 12 weeks of age among the genotype groups. Body circumference plus breast length were the best prediction variables in the PXP group at this period. Body circumference plus shank length were the best prediction variables in the BXB group, while the combination of body circumference with breast length and thigh length were the best prediction variables in the BXP group at this period. Significantly ($P < 0.01$) high and positive correlation coefficients were generally obtained between body weight and linear body parameters from four to 14 weeks of age among the three genotype groups of guinea fowl. It was concluded based on the results obtained from this research that improvement in body weight of guinea fowls can be achieved with very high degree of accuracy, by selection based on body circumference solely, body circumference plus breast length, body circumference plus shank length or thigh length, at 12 weeks of age among the genotype groups. Furthermore, selection made between 4-14 weeks of age based on any of the linear body parameters in guinea fowl will lead to a corresponding improvement in body weight. (Ref: Ebegbulem Victoria N, Ibom Lawrence A, Dauda Ayuba. Association between body weight and body conformation traits of guinea fowl (*Numida meleagris*) genotypes in Southern Nigeria. *Discovery*, 2018, 54(276), 479-483).

CHEMICAL SCIENCE

Solutions of the Schrödinger Equation for the Superposed Screened Coulomb plus Kratzer Fues Potential Using the WKB Approximation Method

Benedict Iserom Ita, Hitler Louis, Onyemaobi Ifeanyichuckwu Michael, Nzeata-Ibe Nelson

The solutions of the Schrödinger equation with the Superposed Screened Coulomb plus Kratzer Fues (SSCKF) potential have been presented using the Wentzel Kramers Brillouin (WKB) approach. The bound state energy eigenvalue was obtained as;

$$E_{n1} = D_e + g_1¢ + 2g_2¢ - \frac{m(g_1 + g_2 + 2D_e r_e)^2 / 2\hbar^2}{\left[\left(n + 1/2\right) + \sqrt{\left(l + 1/2\right) + \frac{2mD_e r_e}{\hbar^2}}\right]^2}$$

Where negative energy eigenvalue indicates a bound state system. Also, particular case of this potential has been considered and their energy eigenvalue obtained.

Discovery, 2018, 54(276), 447-452

SOCIAL SCIENCE

Assessment of federal governments' effort on looted assets recovery in Nigeria as a means of fighting corruption and terrorism

Adeniran, Adetayo O

The aim of this study is to assess the effort of Federal Government towards looted assets recovery in Nigeria which is a means of fighting corruption and terrorism and enhancing national development. The specific objectives are to examine the relationship between corruption and terrorism in Nigeria, and to assess the efforts of the Federal Government of Nigeria on the recovery of stolen assets with emphasis on General Sani Abacha. The null hypothesis was hinged on the first objective which states that there is no relationship between corruption and terrorism in Nigeria. Regression analysis was adopted to examine the relationship between corruption and terrorism. Correlation coefficient of 0.673 indicates a strong and positive relationship between the rank of Global Peace Index and the rank of Corruption Perception Index in Nigeria. Also, the regression value of 0.453 indicates that 45.3% of the Corruption is explaining Terrorism in Nigeria, and the significance level of the computed test statistics is 0.033 which affirmed that there is a significant relationship between Terrorism and Corruption in Nigeria. Corruption and terrorism directly or indirectly hinders national development, therefore the importance of recovering looted asset cannot be overemphasized. Asset recovery has become one of the major themes in discourses on national development funding, which is part of the enormous amount of resources that are lost annually by developing countries. Although there is a lack of international legal consensus on the definition of corruption, it is generally understood as the abuse of public office for private gain. Public office is abused for private gain when an official accepts, solicits, or extorts a bribe. It was recommended that there is the need for international collaboration, complete autonomy or total independence of the concerned institution to enhance efficiency of recovering assets and strict monitoring towards utilization of recovered assets to prevent re-looting. In order to reduce the high level of terrorism in the country, corruption must be tackled.

Discovery, 2018, 54(276), 453-462

PHYSICAL SCIENCE

Graphene oxide on the electrical properties D.C and A.C and dielectric constant of PVP/PVA Nanocomposites

Nadia Abbas Ali

Graphene oxide (GO) nanofiller were incorporated in PVP/PVA blend films for the preparation of nanocomposite polymer films by the solution cast method. The films were characterized using SEM, D.C and A.C and dielectric properties studies at room temperature. SEM structure shows that the GO exfoliated and uniformly dispersed in PVP/PVA matrix. DC conductivity studies were under taken at (303-336) K, and the conductivity was found to be 3.3×10^{-5} $\Omega.cm^{-1}$ for the polymer film prepared at 336K. The A.C electrical conductivity increase with the increase of frequency. The dielectric properties were measured the frequency range 100Hz-5MHz at room temperature show that the dielectric constant (real and imaginary) decrease with the increase of Graphene oxide nanoparticles concentrations.

Discovery, 2018, 54(276), 463-468

AGRICULTURAL SCIENCE

Efficacy of different plant extract on packaging materials against *Tribolium castaneum*

Muhammad Bilal Saleem, Mubashar Hussain, Mehboob Hussain, Muhammad Awais, Mirza Muhammad Usman Hayat, Muhammad Waseem Zulifqar, Muhammad Mubeen Khadim

The present study was carried out to investigate the toxicity of plant extracts treated on three packaging materials against two stored product insect pests, *Tribolium castaneum*. Three plant extracts (*Azadirachta indica*, *Eucalyptus globulus* and *Ocimum basilicum*) were applied on three packaging materials (polyethylene, polypropylene and jute). Six concentrations of plant extracts (10, 15, 20, 25, 30 and 35%) were applied on each packaging material cut into circular pieces of petri dish size. After air drying, the treated pieces of packaging materials were placed in petri dishes. Then 30 adults of *Tribolium castaneum* was released in the petri dishes, which were tightly covered using rubber bands and were placed in incubator at optimum growth conditions. Mortality of insects were observed after 24, 48 and 72 hrs. According to the results of bioassay for evaluation of plant extracts, maximum mortality of *T. castaneum* at 35% conc. and 72 hours exposure time was 36.01% for *Azadirachta indica* treated on polyethylene packaging material, 32.95% for *Eucalyptus globulus* and 24.30% for *Ocimum basilicum* at the same packaging material, dose rate and exposure time.

Discovery, 2018, 54(276), 469-478

BIOLOGICAL SCIENCE

Association between body weight and body conformation traits of guinea fowl (*Numida meleagris*) genotypes in Southern Nigeria

Ebegbulem Victoria N, Ibom Lawrence A, Dauda Ayuba

The objectives of this study were to determine the phenotypic correlations among body weight and linear body parameters (LBPs) of the black and pearl guinea fowl and their crosses, as well as to derive multiple regression equations that can be used to establish models for predicting body weight. The following three genotype groups were established: Pearl male X pearl female (P X P) Homozygous pearl thorough bred line; black male X black female (B X B) Homozygous black thorough bred line and Black male X pearl female (B X P) Heterozygous crossbred line. A total of 317 guinea fowl keets were obtained and used for the study. There were 100 PXP, 118 BXB and 99 BXP keets. The coefficient of determination of body weight by linear body measurements was generally significantly ($P < 0.001$) high between 8 and 12 weeks of age among the genotype groups. Body circumference plus breast length were the best prediction variables in the PXP group at this period. Body circumference plus shank length were the best prediction variables in the BXB group, while the combination of body circumference with breast length and thigh length were the best prediction variables in the BXP group at this period. Significantly ($P < 0.01$) high and positive correlation coefficients were generally obtained between body weight and linear body parameters from four to 14 weeks of age among the three genotype groups of guinea fowl. It was concluded based on the results obtained from this research that improvement in body weight of guinea fowls can be achieved with very high degree of accuracy, by selection based on body circumference solely, body circumference plus breast length, body circumference plus shank length or thigh length, at 12 weeks of age among the genotype groups. Furthermore, selection made between 4-14 weeks of age based on any of the linear body parameters in guinea fowl will lead to a corresponding improvement in body weight.

Discovery, 2018, 54(276), 479-483

ECONOMICS, BUSINESS & MARKETING

The review of critical success factors of enterprise resource planning system implementation

Aliyu Usman Shehu, Tariro Masunda

Enterprise resource planning systems integrate all functional units within an organization which gives the firm competitive advantage over its competitors. The purpose of this study is to systematically appraise current and previous literature on enterprise resource planning, and investigate the critical factors that determine their successful implementation. The aim of this paper is to review prior studies on Enterprise Resource Planning (ERP) from 2002 to 2016 including implementation benefit/success, factors affecting implementation and implementation successes of ERP. The study employed the use of Systematic Literature Review (SLR). Finally, the study explains the findings of this review regarding contemporary studies on the ERP implementation and factors determining it and in turn highlights implication, conclusion and suggestions for future research study.

Discovery, 2018, 54(276), 484-495

Effect of electronic banking related fraud on deposit money banks financial performance in Nigeria

Adaora Immaculata Muoghalu, Jisike Jude Okonkwo, Amalachukwu Chijindu Ananwude

This study empirically ascertained the effect of electronic banking related fraud on deposit money banks financial performance in Nigeria. Empirical studies relating electronic banking and banks performance in Nigeria has been centred on its benefit of improving profitability of deposit money banks while the effect of fraud perpetrated on electronic banking platforms used by banks operating in the economy are often neglected. Specifically, we examined the effect of electronic banking related fraud on automated teller machines, mobile banking, point of sale terminals and web to return on assets, return on equity, interest income and non-interest income of deposit money banks. Comprehensive data on fraud on the various electronic banking channels from the apex regulatory agency of the banking system: Central Bank of Nigeria began in 2013 thus limiting the study to a period of four years. The Ordinary Least Square (OLS) was applied in estimating the regression equation, whereas effect of fraud on various channels of electronic banking and financial performance ascertained with the help of the granger causality analysis. The findings from the study dispelled that fraud on point of sale terminals has significant negative effect on interest income, while fraud on automated teller machines, mobile banking and web had no effect on return on assets, return on equity and non-interest income of banks. we suggested that there is need for deposit money banks to further authenticate transactions on point of sale terminal by sending confirmation code to mobile number linked to the account to affirm that the transaction was initiated the original cardholder.

Discovery, 2018, 54(276), 496-503