

CONTENTS

Review Articles

- GUL, S., HASSAN, S.H., MARYAM, A., SHAKIR, H.A., KHAN, M., IRFAN, M., SHAKOORI, F.R. AND QAZI, J.I. Chemopreventive and chemosensitizing effects of green tea: an evidence-based review .....2425
- CHANNO, A., KAKA, A., KALWAR, Q., JAMALI, I., JELANI, G., BAKHSH, M., DAHRI, G.N. AND GOIL, J.P. An overview of bovine cystic ovarian disease .....2437

Physiology

- ISLAM, M.S., WANG, H., MAHDI, A.A., AHAMED, M.I., LOU, Z. AND WEI, F.A. Effect of heat-treatment duration on antioxidant activities of muscle, liver and other parts of grass turtle (*Chinemys reevesii*) .....2003
- DUAN, S., LI, Z., FAN, Z., QIN, M., YU, X. AND LI, L. Effects of dietary supplementation of linseed oil on egg quality and monounsaturated fatty acid content of *Gallus domesticus* eggs .....2077
- LI, S., BO, Y., LI, Y. AND YANG, X. Determination of atropine residues in beef by high performance liquid chromatography .....2091
- XIANG, Q., LI, J.J., ZHANG, Q., TIAN, R.B. AND LI, X.H. Expression of somatostatin type-2 receptors in mouse dorsal root ganglion at early stage of pain models: evidence for the inhibitory role of somatostatin in pain .....2111
- CUI, W., DU, Y., JIANG, L., WEI, Y., LI, Y., ZHANG, W. AND ZHANG, L. Protective effect of Buyang Huanwu decoction on diabetes-induced damage to hippocampal neurons by regulating PI3K-AKT/Bcl-2 pathway .....2137
- ZHANG, Z., ZOU, P., ZHANG, J., ZENG, Y. AND TANG, Y. Effect of intravenous thrombolysis on the early treatment time window and blood-brain barrier marker protein expression .....2253
- XU, F., FAN, W. AND LIU, G. Effect of rutin on the ox-LDL-induced vascular endothelial cell injury by regulating NEXN-AS1/miR-410-3p pathway .....2277
- LU, X., DAWOOD, M.A.O., WU, F., WEN, H., LIU, W., TIAN, J., JIANG, M., YU, L.J., LI,

- X., XU, N. AND LIANG, H.W. Effect of dietary L-carnitine supplementation on growth, serum biochemical indices, oxidative and growth-related gene expressions in Chinese soft-shelled turtle (*Pelodiscus sinensis*) ..... 2365
- ISLAM, Z., SULTAN, A., KHAN, S.Z. AND KHAN, S.B. Effect of organic acids blend, micro-encapsulated phyto-essential oils individually or in combination on growth performance, gut health and nutrients utilization of broilers ..... 2391
- XU, H., LUO, R., DUAN, Y., CHEN, M., ZHOU, J. AND SHAO, X. Fibrobronchoscope-assisted lavage combined with azithromycin in regulating the lung function and th17/treg of peripheral blood in children with *Mycoplasma pneumoniae* pneumonia ..... 2401
- KHALIL, M., FAROOQ, A., FARAZ, A., WAHEED, A., TAUQIR, N.A., MIRZA, R.H. AND ISHAQ, H.M. Evaluation of lactation and performance of Friesian cow in local environment of Quetta, Balochistan, Pakistan (S.C.) ..... 2461
- MEHMOOD, T., KHAN, M.A., CHAUDHRY, A.S., ASHRAF, K., ALI, M.M., AYOUB, M.F., HUSSAIN, M., SALEEM, F. AND FAYAZ, M. Effect of variable degrees of jejunal resection on clinical and haematological parameters of cats (S.C.) ..... 2465
- ABBAS, M.Z., ASHFAQ, K., AQIB, A.I., ALVI, M.A., TAYYAB, M.H., GHAFOR, M., NASEER, M.U., ABBAS, A. AND HASSAN, A. Incidence of subclinical ketosis and evaluation of associated risk factors in early lactating dairy buffaloes (S.C.) ..... 2469

Continued on last page of this issue

[Covered by ISI Web of Knowledge, Abstracted and indexed in *Biological Abstracts*, *Chemical Abstracts*, *Zoological Records*, *Information Retrieval Limited*, *London*, *Service Central De Documentation De L'ORSTOM*, *Paris* and *National Inquiry Services Centre*, *South Africa*, Contents accessible via EBSCO host™].

- FAYYAZ, M.H., ANDRABI, S.M.H. AND HAIDER, M.S. Effect of glutathione and L-cysteine supplementation on the quality of frozen beetal buck spermatozoa (S.C.).....2473

## Genetics

- HUANG, W., LIANG, X., XIE, X., WANG, X. AND CHEN, X. Multi-gene phylogenetic analysis and genetic diversity of discrete elytral color phenotypes in *Menochilus sexmaculatus* (Coleoptera: Coccinellidae).....2011
- QIBTIA, M., FARYAL, S., WASIM, M., CHOWDHARY, F., TAYYAB, M., MANSOVURI, A., AHMED, Z., HAMID, M. AND AWAN, A.R. Polymorphism in *MCM6*-gene associated with lactose non-persistence in Pakistani patients .....2029
- BELAL, S., ALBRAKATI, A., ALSHARIF, K., ALSHEHRI, S., ALBLIHED, M., ALMUQATI, M., ALSHARIF, A., ALBARAKATI, A. AND AL-SHARIF, A. Evaluation of impact of residence at high altitude on the anthropometric measurements of new born babies in Saudi Arabia .....2047
- AL-AQMER, N.H.H., AAMIR, Z., HANIF, M.F., ZULFIQAR, S., ZULFIQAR, S., IZHAR, M. AND SHAKOORI, A.R. *Apal* VDR polymorphism as a risk factor of treatment failure in chronic hepatitis C patients.....2055
- ZHANG, Z., WANG, N., HOU, C., SHAFIQUE, L., REHMAN, S., WU, Z., WANG, Z., WEI, M. AND CUI, K. The effect of PIS region on horned or polled phenotype traits in China Guanzhong dairy goats.....2221

## Microbiology

- WU, J. Antibacterial activity of *Taraxacum officinale* against foodborne pathogens.....2021
- YANG, Y., ZHOU, H., SHAO, J., ZHANG, X., XIA, P., ZHOU, M., DUAN, Q. AND ZHU, G. Effect of *hcp1* of the type VI secretion system on biological characteristics of F18 Shiga toxin-producing *Escherichia coli* .....2145
- GHONEEM, W.M.A., SHAKLOUF, M.M., ALI, A.M. AND BAKR, M.H. Impacts of *Lactobacillus acidophilus* fermentation product on digestibility, immune system response, blood parameters, milk production and milk composition in mid-lactating buffaloes (*Bubalus bubalis*) .....2167
- KHAN, S.B., KHAN, M.A., AHMAD, I., KHAN, F.A., KHAN, H. AND KHAN, S.A. Prevalence of antibiotic resistant genes in *Staphylococcus aureus* isolated from bovine mastitis .....2239

- ZHANG, X., WANG, P., JU, H., WANG, Y., YANG, Y. AND ZHU, G. Zoonotic potential of canine uropathogenic *Escherichia coli* Isolated from Yangzhou, China (S.C.) ..... 2453

## Wildlife / Environmental Biology

- WANG, D., ZHU, Y., XIA, W., ZHAO, M., YANG, C. AND LI, D. Natural recovery and impact of landslide and debris flow within habitat of Yunnan snubnosed monkeys in Baimaxueshan Nature Reserve..... 2039
- SHIN, M.S., CHO, H.J. AND LEE, E.J. Estimating the potential habitat of breeding egrets and herons (Family Ardeidae) for urban forest management in Daejeon metropolitan city, Korea ..... 2069
- LEE, J.K., HWANG, H.S., EOM, T.K., LEE, D.H. AND RHIM, S.J. Slope gradient effect on microhabitat and small rodents in a tree thinned Japanese larch plantation ..... 2213
- ZHAO, M., ZENG, X., XIA, W., REN, B., FENG, H., WANG, F., ZHOU, Q. AND LI, D. Birth processes and related behaviors of Yunnan snub-nosed monkeys in Baimaxueshan Nature Reserve ..... 2245
- IRSHAD, N., AKHTER, M., MAHMOOD, T., AKRIM, F., KHAN, M.R. AND NADEEM, M.S. Dietary habits of Altai weasel (*Mustela altaica*) in Bunjosa Game Reserve Rawalakot, Azad Jammu and Kashmir, Pakistan ..... 2259
- MAHMOOD, T., ISMAIL, S., AKRIM, F., FAROOQ, M., MUNAWAR, N. AND KHAN, M.R. Diet composition of grey wolf (*Canis lupus*) varies seasonally in Deosai National Park, Gilgit-Baltistan, Pakistan..... 2267
- JEHAN, M., BAJWA, M.A., TARIQ, M.M., FARAZ, A., SAMAAD, A., AHMAD, J. AND BAROZAI, Y.H. Molecular characterization of Balochi sheep by using microsatellite markers in Pakistan ..... 2295
- MERABET, S., KHAMMES-EL HOMSI, N., AFTISSE, L. AND AULAGNIER, S. Seasonal reproduction shift among three murine rodents in a Mediterranean area of north-western Africa ..... 2309
- IBRAHIM, A., CHEN, B., ALI, H., ALI, I., CAO, Y. AND YANG, G. Skin marks on the Indus River dolphin (*Platanista minor*) and their implications for conservation ..... 2329
- HUSSAIN, Z., ALI, Z. AND AHMAD, R. Causes of morbidity and mortality in wild animals and birds at captive breeding facilities of Punjab, Pakistan ..... 2337

## Pest & Pest Control

- SOHAIL, M., SOOMRO, Q.A., MUHAMMAD, R.,

ASIF, M.U. AND RAUF, I. Screening, characterization and purification of cellulase from mango mealybug <i>Drosicha stebbingi</i> Green (Homoptera: Margarodidae).....	2061
TANVIR, M., RIAZ, M.A., MAJEED, M.Z., ZAFAR, M.I., TARIQ, M. AND TAYYAB, M.B. Comparative efficacy of selected biorational insecticides against larvae of southern house mosquito <i>Culex quinquefasciatus</i> Say (Diptera: Culicidae).....	2229
<hr/>	
<b>Herbal Medicine</b>	
HU, D., WANG, J., WANG, H., LENG, X.Y., ZHAO, T.Y. AND WANG, S.M. Studies on mechanism of preventive effect of fermentation product of <i>Calvatia lilacina</i> on water-immersion stress induced gastric ulcers in mice.....	2085
LI, Y., LI, Y., ZHUANG, X., LV, G., HUANG, X., LIN, Z., WANG, Y. AND LIN, H. Oviductus <i>Ranae</i> improves cognitive disorder and suppresses oxidative stress in aging mice by activating Nrf2 pathway.....	2153
REN, T., CAO, G., HAN, X., TAN, F., CHEN, Q., YANG, S. AND ZHANG, H. Cardioprotective effect of Naringenin against myocardial ischemia-reperfusion injury via alteration of apoptotic signaling pathway.....	2285
HUANG, X., WANG, J., YU, Z., DUAN, M. AND LIN, Z. Regulatory effect of <i>Angelica sinensis</i> polysaccharide on BMP-7/Smads/TGF- $\beta$ 1 signal pathway in kidney of rats with radiation injury (S.C.).....	2449
<hr/>	
<b>Parasitology</b>	
HAQ, M.A., MUKHTAR, T., INAM-UL-HAQ, M. AND KHALID, A. Reproduction of root-knot nematode, <i>Meloidogyne incognita</i> on <i>Solanum melongena</i> genotypes determines their host status .....	2097
ABRAMATOV, M., KUCHBOEV, A., RUZIEV, B. AND SOBIROV, K. Diversity of gastrointestinal nematodes in domestic ruminants of Uzbekistan (S.C.) .....	2445
ZHANG, Y. AND YANG, K. Effects of altitude on the transmission of alveolar echinococcosis (S.C.) .....	2485
<hr/>	
<b>Fish Biology and Fisheries</b>	
SALAM, M.A., BHAGABATI, S.K., DATTA, R., SINGH, H.R. AND OINAM, G. A study on ichthyofaunal diversity of Lake Kharungpat, Manipur, India.....	2105
BEKTAS, S. AND AYIK, O. Alterations in some selected hematological parameters and glucose-6-phosphate dehydrogenase (G6PD) activity of rainbow trout ( <i>Onchorhynchus mykiss</i> ), experimentally infected with <i>aeromonas salmonicida</i> .....	2119
MAJEED, A., LIANG, Z., ZHU, L., LIU, C., KALHORO, MA. AND SAEED, F. Stock analysis of shrimp scad ( <i>Alepes djedaba</i> ) fishery from Northern Arabian Sea, Balochistan Coast, Pakistan .....	2203
IQBAL, K.J., BABOO, I., JAVID, A., KHAN, N., MAJEED, H., ANWER, A., FAROOQ, Z., ALTAF, J. AND JALEES, M. Toxicity of iron-oxide nano-particles on the hematology of <i>Cyprinus carpio</i> (S.C.).....	2797
<hr/>	
<b>Entomology</b>	
HAROON, YE, C.X., LI, Y.X., ZHANG, H.X., LIU, Q., SU, X.H. AND XING, L.X. Breeding biology of <i>Reticulitermes aculabialis</i> (Isoptera: Rhinotermitidae) .....	2127
EKECHUKWU, N.E., EKEH, F.N., OHANU, C.M., EZINWA, H.C. AND AGUZIE, I.O.N. Insect fauna diversity and abundance in abattoirs in Enugu north senatorial zone, Eastern Nigeria.....	2159
KHANUM, T.A., MEHMOOD, N. AND FAYYAZ, S. Description of <i>Neorhabditis andrassyii</i> n. sp., and re-description of <i>Poikilolaimus oxycercus</i> de Man, 1895 from Sindh .....	2179
RAFIQ, C.M., RIZWAN, M., ATTA, B., SABIR, A.M., RIZWAN, M., ARSHAD, M., ZEESHAN, M., LATIF, H., KHALID, U.B., IQBAL, S. Manipulating rice planting geometry and nutrient levels has an effect on brown planthopper, <i>Nilaparvata lugens</i> (Stål) (Hemiptera: Delphacidae) incidence .....	2373
MASTOI, A.H., NIZAMANI, M.R., MEMON, S.A., JIANG, J., HU, X.S. AND LIU, T.X. Pea aphid (Hemiptera: Aphididae) population responses to selected pea cultivars and high temperatures (S.C.).....	2477
ANGEL-SAHAGÚN, C.A., PALOMARES, J.E.O., HERNÁNDEZ-RANGEL, A.A., CRUZ-VÁZQUEZ, C., MONTESINOS-MATIAS, R., VALENCIA-POSADAS, M. AND CRUZ-AVALOS, A.M. Evaluation of entomopathogenic fungi isolated from adult dog fleas, <i>Ctenocephalides canis</i> (Siphonaptera: Pulicidae) (S.C.).....	2481
KHOKHAR, J.A., URSANI, T.J., MEMON, F., MALIK, S., SOOMRO, A. AND SHAH, F. Diversity and morphometric of oothecae of mantids in district Mirpurkhas, Sindh (S.C.) ....	2493

---

**Infectious Diseases**

---

- ZAHRA, A., SALEEM, M.A., JAVED, H. AND KHAN, M.A.U. Prevalence of HCV-HIV co-infection with intravenous drug users in central Punjab, Pakistan.....2185
- WANG, Z., WU, Q., YE, R., NABI, F., SHANG, Y., ALI, S. AND LIU, J. Protective effects of *Atractylodes macrocephala* polysaccharide on iIELs and the *IL-6*, *TNF- $\alpha$*  mRNA level in *E. coli* induced diarrheal mice .....2193

---

**Molecular Biology**

---

- ALI, A., TAYYAB, M., HASHMI, A.S., NADEEM, A., HANIF, S., FIRYAL, S., SAEED, S., AWAN, A.S. AND WASIM, M. Characterization of a novel recombinant  $\beta$ -lactamase from *Bacillus subtilis* R5 .....2301
- ZAFAR, M., AWAN, F.R., MIRZA, M.R., NISHAT, S., RAJPUT, S.A. AND MALIK, I.R. Mining the SNPs of human low density lipoprotein (LDL) related gene *APOB* through *in silico* approaches .....2315
- ZAHRA, A., SALEEM, M.A., JAVED, H., KHAN, M.A.U. AND SHAKOORI, A.R. Emergence of novel unique recombinant forms and multiple subtypes in gag-pol region of HIV-1 in Punjab, Pakistan.....2353
- LIU, X. AND LI, Z. Effects of tetrahydroxystilbene glucoside on VEGF and MMP-9 protein expression in kidney tissues of rats with diabetic nephropathy (*S.C.*).....2457

---

**Biotechnology**

---

- TANVEER, K., MAHMOOD, M.S., ASHRAF, M. AND KHAN, A. Azo and phthalocyanine dyes degradation by bacteria isolated from textile industrial waste ..... 2381
- AHMAD, B., KHAN, M.A., AHMAD, Z., BILAL, R.M. AND KAMBOH, A.A. Improvement of processing quality and yield while sustaining consumer acceptability of cobb broiler meat through zinc biofortification..... 2407

---

**Biodiversity**

---

- YUAN, L., YANG, K. AND JIANG, D. Molecular phylogenetic status of *Rhacophorus laoshan* and *Zhangixalus yinggelingsensis* (Anura: Rhacophoridae) from China ..... 2417

---

**Insecticide Toxicity**

---

- KAUR, H. AND HUNDAL, S.S. Acetylcholinesterase and glutathione-S-transferase as biomarkers for imidacloprid toxicity in earthworm *Eudrilus eugeniae* and *Metaphire posthuman* (*S.C.*) ..... 2489
-