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Employment

Assistant Professor

Department of Biology
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Education

2015 PhD in Environmental Sciences and Ecology, University of Hong Kong
2010 Msc in Genetics, Ocean University of China
2007 Bsc in Biology, Ocean University of China

Research outputs

Synergistic toxicity of microcystin-LR and Cu to zebrafish (*Danio rerio*)

Wei, H., Wang, S., Xu, E. G., Liu, J., Li, X. & Wang, Z., 15. Apr 2020, In : Science of the Total Environment. 713, 136393.

A Review of Microplastics in Table salt, Drinking Water, and Air: Direct Human Exposure

Zhang, Q., Xu, E. G., Li, J., Chen, Q., Ma, L., Zeng, E. Y. & Shi, H., 2020, In : Environmental Science & Technology. 54, 7, p. 3740-3751

Exposure to crude oil induces retinal apoptosis and impairs visual function in fish

Magnuson, J. T., Bautista, N. M., Lucero, J., Lund, A. K., Xu, E. G., Schlenk, D., Burggren, W. W. & Roberts, A. P., 2020, In : Environmental Science & Technology. 54, 5, p. 2843-2850

Primary and Secondary Plastic Particles Exhibit Limited Acute Toxicity but Chronic Effects on *Daphnia magna*

Xu, E. G., Cheong, R. S., Liu, L., Hernandez, L. M., Azimzada, A., Bayen, S. & Tufenkji, N., 2020, In : Environmental Science & Technology. 54, 11, p. 6859-6868

Plastic Teabags Release Billions of Microparticles and Nanoparticles into Tea

Hernandez, L. M., Xu, E. G., Larsson, H. C. E., Tahara, R., Maisuria, V. B. & Tufenkji, N., 5. Nov 2019, In : Environmental Science and Technology. 53, 21, p. 12300-12310

Assessing Toxicity and in Vitro Bioactivity of Smoked Cigarette Leachate Using Cell-Based Assays and Chemical Analysis

Xu, E. G., Richardot, W. H., Buruaem, L., Wei, H-H., Dodder, N. G., Schick, S. F., Novotny, T., Schlenk, D., Gersberg, R. M. & Hoh, E., 19. Aug 2019, In : Chemical Research in Toxicology. 32, 8, p. 1670-1679

Mahi-mahi (*Coryphaena hippurus*) life development: morphological, physiological, behavioral and molecular phenotypes

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mRNA-miRNA-Seq Reveals Neuro-Cardio Mechanisms of Crude Oil Toxicity in Red Drum (*Sciaenops ocellatus*)

Xu, E. G., Khursigara, A. J., Li, S., Esbaugh, A. J., Dasgupta, S., Volz, D. C. & Schlenk, D., 19. Mar 2019, In : Environmental Science & Technology. 53, 6, p. 3296-3305

Artificial turf infill associated with systematic toxicity in an amniote vertebrate

Xu, E. G., Lin, N., Cheong, R. S., Ridsdale, C., Tahara, R., Du, T. Y., Das, D., Silva, L. P., Azimzada, A., Larsson, H. C. E. & Tufenkji, N., 2019, In : Proceedings of the National Academy of Sciences of the United States of America. 116, 50, p. 25156-25161 6 p.

Separation and Analysis of Microplastics and Nanoplastics in Complex Environmental Samples

Claveau-Mallet, D., Claveau-Mallet, D., Hernandez, L. M., Xu, E. G., Farner, J. M. & Tufenkji, N., 2019, In : Accounts of Chemical Research. 52, 4, p. 858-866

Short-term exposure to positively charged polystyrene nanoparticles causes oxidative stress and membrane destruction in cyanobacteria

Feng, L-J., Li, J-W., Xu, E. G., Sun, X-D., Zhu, F-P., Ding, Z., Tian, H., Xia, P-F., Yuan, X-Z. & Dong, S-S., 2019, In : Environmental Science: Nano. 6, 10, p. 3072-3079

Effects of HCO₃⁻ on Degradation of Toxic Contaminants of Emerging Concern by UV/NO₃⁻

Huang, Y., Kong, M., Westerman, D., Xu, E. G., Coffin, S., Cochran, K. H., Liu, Y., Richardson, S. D., Schlenk, D. & Dionysiou, D. D., 6. Nov 2018, In : Environmental Science and Technology. 52, 21, p. 12697-12707

Acute toxicity of an emerging insecticide pymetrozine to *Procambarus clarkii* associated with rice-crayfish culture (RCIS)

Yu, J., Xu, E. G., Li, W., Jin, S., Yuan, T., Liu, J., Li, Z. & Zhang, T., 2018, In : International Journal of Environmental Research and Public Health. 15, 5, 984.

Changes in microRNA–mRNA Signatures Agree with Morphological, Physiological, and Behavioral Changes in Larval Mahi-Mahi Treated with Deepwater Horizon Oil

Xu, E. G., Magnuson, J. T., Diamante, G., Mager, E., Pasparakis, C., Grosell, M., Roberts, A. P. & Schlenk, D., 2018, In : Environmental Science & Technology. 52, 22, p. 13501-13510

Changes in thyroid status of *Menidia beryllina* exposed to the antifouling booster irgarol: Impacts of temperature and salinity

Moreira, L. B., Diamante, G., Giroux, M., Xu, E. G., Abessa, D. M. D. S. & Schlenk, D., 2018, In : Chemosphere. 209, p. 857-865

Cyto- and geno-toxicity of 1,4-dioxane and its transformation products during ultraviolet-driven advanced oxidation processes

Xu, E., Schlenk, D. & Liu, H., 2018, In : Environmental Science: Water Research & Technology. 4, 9, p. 1213-1218

Ecological risks posed by ammonia nitrogen (AN) and un-ionized ammonia (NH₃) in seven major river systems of China

Liu, H., Xu, E. G., Vidal-Dorsch, D. E. & Giesy, J. P., 2018, In : Chemosphere. 202, p. 136-144

Efficient degradation of cytotoxic contaminants of emerging concern by UV/H₂O₂

Huang, Y., Liu, Y., Kong, M., Xu, E. G., Coffin, S., Schlenk, D. & Dionysiou, D. D., 2018, In : Environmental Science: Water Research & Technology. 4, 9, p. 1272-1281

Impacts of Salinity and Temperature on the Thyroidogenic Effects of the Biocide Diuron in *Menidia beryllina*

Moreira, L. B., Diamante, G., Giroux, M., Coffin, S., Xu, E. G., Moledo De Souza Abessa, D. & Schlenk, D., 2018, In : Environmental Science and Technology. 52, 5, p. 3146-3155

Interrogation of the Gulf toadfish intestinal proteome response to hypersalinity exposure provides insights into osmoregulatory mechanisms and regulation of carbonate mineral precipitation

Schauer, K. L., Reddam, A., Xu, E. G., Wolfe, L. M. & Grosell, M., 2018, In : Comparative Biochemistry and Physiology - Part D: Genomics and Proteomics. 27, p. 66-76

The effect of chlorpyrifos on salinity acclimation of juvenile rainbow trout (*Oncorhynchus mykiss*)

Amiri, B. M., Xu, E. G., Kupasco, A., Giroux, M., Hoseinzadeh, M. & Schlenk, D., 2018, In : aquatic toxicology. 195, p. 97-102

Tracking major endocrine disruptors in coastal waters using an integrative approach coupling field-based study and hydrodynamic modeling

Xu, E. G., Chan, S. N., Choi, K. W., Lee, J. H. W. & Leung, K. M. Y., 2018, In : Environmental Pollution. 233, p. 387-394

Differential Expression of MicroRNAs in Embryos and Larvae of Mahi-Mahi (*Coryphaena hippurus*) Exposed to Deepwater Horizon Oil

Diamante, G., Xu, E. G., Chen, S., Mager, E., Grosell, M. & Schlenk, D., 12. Dec 2017, In : Environmental Science & Technology Letters. 4, 12, p. 523-529

Larval Red Drum (*Sciaenops ocellatus*) Sublethal Exposure to Weathered Deepwater Horizon Crude Oil: Developmental and Transcriptomic Consequences

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Developmental toxicity of hydroxylated chrysene metabolites in zebrafish embryos

Diamante, G., do Amaral e Silva Müller, G., Menjivar-Cervantes, N., Xu, E. G., Volz, D. C., Dias Bairy, A. C. & Schlenk, D., 2017, In : aquatic toxicology.

Developmental transcriptomic analyses for mechanistic insights into critical pathways involved in embryogenesis of pelagic mahi-mahi (*Coryphaena hippurus*)

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Mixture toxicity of bensulfuron-methyl and acetochlor to red swamp crayfish (*Procambarus clarkii*): Behavioral, morphological and histological effects

Yu, J., Xu, E. G., Ren, Y., Jin, S., Zhang, T., Liu, J. & Li, Z., 2017, In : International Journal of Environmental Research and Public Health.

Novel transcriptome assembly and comparative toxicity pathway analysis in mahi-mahi (*Coryphaena hippurus*) embryos and larvae exposed to Deepwater Horizon oil

Xu, E. G., Mager, E. M., Grosell, M., Hazard, E. S., Hardiman, G. & Schlenk, D., 2017, In : Scientific Reports.

Spatial and temporal ecological risk assessment of unionized ammonia nitrogen in Tai Lake, China (2004–2015)

Li, Y., Xu, E. G., Liu, W., Liu, H., Li, D., Liu, Z., Giesy, J. P. & Yu, H., 2017, In : Ecotoxicology and Environmental Safety.

Biochar as a novel niche for culturing microbial communities in composting

Sun, D., Lan, Y., Xu, E. G., Meng, J. & Chen, W.F., 2016, In : Waste Management.

Long-term spatio-temporal trends of organotin contaminations in the marine environment of Hong Kong

Ho, K. K. Y., Zhou, G-J., Xu, E. G. B., Wang, X. & Leung, K. M. Y., 2016, In : PLOS ONE.

Microbial community structure and predicted bacterial metabolic functions in biochar pellets aged in soil after 34 months

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Revealing ecological risks of priority endocrine disrupting chemicals in four marine protected areas in Hong Kong through an integrative approach

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Xu, E. G., Bui, C., Lamerdin, C. & Schlenk, D., 2016, In : Science of the total environment.

Time- and Oil-Dependent Transcriptomic and Physiological Responses to Deepwater Horizon Oil in Mahi-Mahi (*Coryphaena hippurus*) Embryos and Larvae

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Trophic transfer and effects of DDT in male hornyhead turbot (*Pleuronichthys verticalis*) from Palos Verdes Superfund site, CA (USA) and comparisons to field monitoring

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Trophic transfer and effects of DDT in male hornyhead turbot (*Plauronichthys verticalis*) from Palos Verdes Superfund site, CA (USA) and comparisons to field monitoring

Crago, J. & Xu, E. G., 2016, In : Environmental Pollution.

An integrated environmental risk assessment and management framework for enhancing the sustainability of marine protected areas: The Cape d'Aguilar Marine Reserve case study in Hong Kong

Xu, E. G. B., Leung, K. M. Y., Morton, B. & Lee, J. H. W., 2015, In : Science of the total environment.

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Molecular method for sex identification of half-smooth tongue sole (*Cynoglossus semilaevis*) using a novel sex-linked microsatellite marker

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The occurrence and ecological risks of endocrine disrupting chemicals in sewage effluents from three different sewage treatment plants, and in natural seawater from a marine reserve of Hong Kong

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Chen, S-L., Ji, X-S., Shao, C-W., Yang, J-F., Liang, Z., Liao, X-L., Xu, G-B., Xu, Y. & Song, W-T., 2012, In : Marine Biotechnology. 14, 1, p. 120-128 9 p.

New polymorphic microsatellite markers for bluefin leatherjacket (*Navodon septentrionalis* Gunther, 1877)

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Xu, J-Y., Xu, G-B. & Chen, S-L., 2009, In : BioTechniques. 46, 3, p. 201-208 8 p.

Construction of a genetic linkage map and mapping of a female-specific DNA marker in half-smooth tongue sole (*Cynoglossus semilaevis*)

Liao, X., Xu, G-B., Shao, C-W., Ji, X-S., Yang, J-F. & Chen, S-L., 2009, In : Marine Biotechnology.

Eighteen novel microsatellite markers for the Chinese sea perch, *Lateolabrax maculatus*

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Isolation and characterization of 10 polymorphic microsatellite loci from small yellow croaker (*Pseudosciaena polyactis*)

Chen, S-L., Xu, G-B., Liao, X. & Yang, J-F., 2009, In : Conservation Genetics.

Isolation and characterization of 30 novel polymorphic microsatellite loci from Japanese halfbeak, *Hyporhamphus sajori* (Temminck et Schlegel, 1846)

Xing, S. C., Xu, G-B., Liu, S-S., Liao, X-L., Tian, Y. & Chen, S-L., 2009, In : Conservation Genetics.

Isolation and characterization of polymorphic microsatellite loci from bluefin leatherjacket (*Navodon septentrionalis* Gunther, 1877)

Xu, G-B., Tian, Y-S., Liao, X-L. & Chen, S-L., 2009, In : Conservation Genetics.

Isolation and characterization of 12 dinucleotide microsatellite loci from Belonger's jewfish (*Johnius belengerii* Cuvier 1830)

Xu, G., Shao, C., Liao, X., Tian, Y. & Chen, S., 2009, In : Conservation Genetics.

Isolation and characterization of polymorphic microsatellite loci from so-iuy mullet (*Mugil soiuy* Basilewsky 1855)

Xu, G., Shao, C., Liao, X., Tian, Y. & Chen, S., 2009, In : Conservation Genetics.

New polymorphic microsatellite markers for the summer flounder, *Paralichthys dentatus*

Shao, C., Xu, G., Wang, L., Liao, X., Tian, Y. & Chen, S., 2009, In : Conservation Genetics.

Ten polymorphic microsatellite loci for the Atlantic halibut (*Hippoglossus hippoglossus*) and cross-species application in related species

Ding, H., Shao, C., Liao, X., Xu, G., Ji, X. & Chen, S., 2009, In : Conservation Genetics.

Twelve polymorphic microsatellite loci from a dinucleotide-enriched genomic library of Japanese Spanish mackerel (*Scomberomorus niphonius*)

Xing, S-C., Xu, G-B., Liao, X-L., Yang, G-P. & Chen, S-L., 2009, In : Conservation Genetics.

Development of 15 novel dinucleotide microsatellite markers in the Senegalese sole *Solea senegalensis*

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