FROM THE EDITOR

In this December 2019 issue of *Science Diliman*, we feature three research articles and one short communication from various disciplines in the biological sciences, and one research article on an analysis of the scientific publications of the College of Science (CS), University of the Philippines Diliman (UPD).

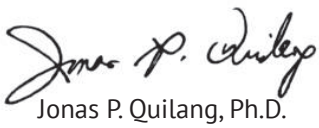
Ecologists Jay Fidelino and Jelaine Gan from UPD determined the patterns of insectivorous bat activity, richness, and assemblage vis-à-vis habitat type, insect abundance, and environmental conditions within an urban green space in Metro Manila, the Philippines' capital region. Although bats are not as charismatic as other animals, they are important to ecosystems. Bats provide indirect benefits to humans, too. In recent years, there has been a growing interest in the use of bat activity to study the effects of urbanization and other land use changes. The study done by Fidelino and Gan is among the very few studies on bats in an urban setting in the Philippines.

Developmental Biologist Jordan Ferdin Halili from UPD and his co-workers evaluated the cytotoxicity and genotoxicity of the Money Tree (*Pachira aquatica*) on plant and animal models as a preliminary screening for the Money Tree's anti-cancer potential. Over the years, there have been a number of studies conducted to discover compounds from plants that can be used to treat cancer and other diseases. Halili and his co-workers found promising cytostatic and cytocidal effects of stem and leaf extracts from the Money Tree, which, according to the authors, indicate that the plant is a potential source of a nature-based chemotherapeutic compound.

Cell Biologist Michael Velarde from UPD and his co-workers studied the effects of extracts from seeds of six species of legumes on the growth of estrogen-responsive breast cancer cell line. Their study is important because these legumes are grown for human consumption. Although we derive nutritional benefits from consuming legumes, some species may have components that mimic human estrogens, which may disrupt normal body processes or promote diseases, according to the authors. Velarde et al. found that low doses of extracts from common beans and cowpeas slightly promoted the growth of breast cancer cells, but high doses decreased the cancer cells' growth. This suggests that certain legumes have potential estrogenic activities at certain doses.

The fourth research article in this issue is an analysis done by Geologist Carlos Primo David and his Research Associate Mart Cyrel Geronia from CS, UPD on the scientific productivity of the different institutes within CS, UPD over a period of 20 years, i.e., from 1998 to 2017. The authors only included in their analysis scientific publications from Thomson Reuters' Web of Science (now maintained by Clarivate Analytics) and Scopus. The authors derived valuable insights from their data such as the possible drivers of scientific productivity, the need for research collaborations with other local and foreign institutions, and the challenge of publishing in prestigious and high-impact journals.

The last article, authored by Arvin Pacoma and Leni Yap-Dejeto from the University of the Philippines Visayas-Tacloban College, is an analysis of the total mercury content of canned tuna and yellowfin tuna (*Thunnus albacores*) and frigate tuna (*Auxist hazard*) caught from the waters of Eastern Visayas, Philippines. The authors also estimated the daily intake for locally caught tuna and accompanying total mercury concentrations; they found that these values were way below the allowed concentration of mercury in fish consumed per day regardless of sex and age, which suggests that there is no health risk to consumers. As for commercially available canned tuna, the authors recommend that no more than one can per day should be consumed by adults and that children and pregnant women should consume less.



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