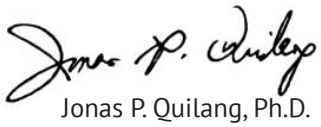
FROM THE EDITOR

It has been almost one year since the first case of coronavirus disease 2019 (COVID-19) has been reported in China, which eventually led to the ongoing pandemic. As of 16 December 2020, the World Health Organization reported 72,196,732 confirmed cases of COVID-19 and 1,630,521 deaths globally, and 451,839 confirmed cases and 8,812 deaths in the Philippines (https://covid19.who.int/). Although these numbers continue to increase every day, there is light at the end of the tunnel because the US Food and Drug Administration has recently issued emergency use authorization for one of the vaccines that have been developed to combat this dreaded disease. Other vaccines are expected to be authorized for emergency use in the coming days. These vaccines have been developed and approved for use at an unprecedented speed – barely one year. Normally, it takes about 10 years for vaccines to be developed and approved. We hope that these vaccines will reach the shores of the Philippines soon so that we can already put an end to this pandemic and get back to our normal lives.

In this issue, we feature four research articles. The first article is by Torres *et al*. who used geometric morphometrics to uncover body shape differences among populations of the striped snakehead (locally known as *dalag*) from three sites in Laguna de Bay and to correlate these shape differences with the physicochemical characteristics of water in those sites. The authors wanted to find out if there were selective pressures within each site that would lead to different morphotypes in the species. The authors found that shape variation was greatest in the head region, which was correlated with differences in dissolved oxygen content and pH of water in the three sampling sites. The second article is by Bacaoco *et al*. who designed a low-cost differential optical absorption spectroscopy (DOAS) for air quality monitoring in urban areas. The authors demonstrated that the DOAS set-up that they developed is capable of measuring trace amounts of atmospheric nitrogen dioxide (NO_2) concentration and aerosol optical thickness (AOT). In addition to its reliable sensitivity and it being a cheaper alternative for environmental monitoring of pollutants, the set-up can also be made portable so that it can be easily transported to the field. The third article is by Buenaventura and Yago who developed a selective and sensitive electrochemical biosensor for uric acid determination using carbon paste electrode (CPE) modified with copper (II) oxide (CuO) particles and urate oxidase (UOx) enzyme. The authors also demonstrated that their UOx-CuO-CPE

biosensor is reusable, reproducible, and stable even after five weeks of storage. Uric acid is the end-product of purine catabolism in humans and other primates. Abnormal levels of uric acid can lead to various diseases; hence, uric acid levels are routinely analyzed in clinical laboratories during physical examination. The last article is by Fornillos *et al*. who used DNA barcoding to establish the identity of bivalves collected from two freshwater environments in the Philippines. The bivalves were found to be Chinese pond mussel (*Sinanodonta woodiana*), which are known invasive exotic species. Genetic analyses of DNA sequences of these bivalves from the Philippines and from other countries revealed that the *S. woodiana* that were included in the authors' study could have originated from Indonesia or Malaysia. The authors surmised that introduced fish species carrying the larvae of this exotic bivalve species could have been the most likely route of introduction into the Philippines.



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Editor-in-Chief