



ABSTRACT

In 2009, the researchers determined the different species of phytoplankton found in Balite Falls, Amadeo, Cavite. These 36 species are *Diatoma elongatum*, *Diatoma valgare*, *tabellaria fenestrata*, *Tabellaria frocculosa*, *Tetracyclus lacustris*, *Mastoglia danseii*, *Surirella biserata*, *Surirella robusta*, *Surirella robusta splendid*, *Surirella robusta var. elegans*, *Surirella tenera*, *Stauroneis anceps*, *Melosira italica*, *Terpsinoe musica*, *Spirogya fuellebornei*, *Closterium porrectum*, *Hyalotheca mucosa*, *Staurastum zonatum*, *Mougeotia viridis*, *Spirogya azygospora*, *Spirogya ellipsospora*, *Spirogya ionia*, *Microspora willenana*, *Oedogonium areolatum*, *Ulothrix zonata*, *Rosenvingiella radicans*, *Lyngbya birgei*, *Oscillatoria chlorine*, *Oscillatoria granulata*, *Oscillatoria princeps*, *Spirulina major*, *Spirulina princeps*, *Plectonema thomasiniana*, *Plectonema wollei*, *Gomphonema lanceolatum*, *Navicula placentula fo. Lanceolata* from 5 divisions and 17 families that were identified. The study showed the variety of phytoplankton species during the month of April and May. The most abundant phytoplankton species with the high relative abundance during the month of April are *Melosira italic*, *Microspora willeaniana* and *Lyngbya birgei* while during the month of May, the most abundant phytoplankton species with the highest relative abundance of species are *Microspora willeaniana*, *Melosira italica* and *Lynbya birgei*. The identification of phytoplankton was correlated to the physio-chemical paramaters in terms of transparency, nitrogen, phosphorus, dissolved oxygen and pH from 3 designated stations on AM and PM collections showed different degrees of correlation with the phytoplankton species. The temperature of water has high positive correlation. The transparency showed moderately negative correlation and the pH, DO showed very high negative correlation thereby it is inversely proportional to the temperature while nitrogen and phosphorus showed no correlation.