

**A Review on the Water Quality of important Streams of Muğla**

Murat BARLAS<sup>1</sup>, Bülent YORULMAZ<sup>2</sup>

<sup>1</sup>Biology Department / Science Faculty Muğla Sıtkı Koçman University, Turkey  
mbarlas@mu.edu.tr

**Aim of the study:** This study is a review of researches, which were carried out to determine water qualities of important streams in Muğla, SW Anatolia by physicochemical features, benthic macroinvertebrates and epilithic diatoms. For this aim, Eşen, Dipsiz-Çine, Sarıçay, Yuvarlakçay, Dalaman Akçay and Tersakançay streams were investigated. These streams are important natural sources of the Muğla City. Muğla city has important ecological and touristic potentials.

**Material and Methods:** This review contains the results of researches and projects those were carried on seven important streams, which cover a period between 2000 and 2015. For this aim, physical and chemical parameters, benthic macroinvertebrates and epilithic diatoms were evaluated. Macroinvertebrate communities along the streams were sampled by using a bottom kick net (500 µm mesh). The samples were taken from an area of nearly 100 m<sup>2</sup> in order to include all possible microhabitats at each station. In some areas with the presence of large stones, the collected macroinvertebrates, were first picked out and washed into the kick net in order to remove pupae and other attached individuals. The diatoms were sampled by scraping the 25 cm<sup>2</sup> upper surface of epilithon, with a stiff tooth brush and collected in 250 ml sample bottle. All biological and physicochemical samples were carried to Hydrobiology Laboratory of Muğla Sıtkı Koçman University Science Faculty, in freezers and biological samples were identified in possible taxa level under convenient microscopes.

**Results:** As a result, 37 sampling points on seven important streams were investigated. Sarıçay stream was found critically polluted while others were slightly polluted in general. The monitoring studies should be continued on these streams because of pollution pressure of increasingly developing urbanization, industrialization and touristic activities.

**Keywords:** Water Quality of Streams, Benthic macroinvertebrates, Epilithic Diatoms.