

## Ecological and zoogeographical implications of the determined aphid species from East and South eastern part of the Turkey

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**Aim of the study:** Turkey has unique floristic, agricultural, zoogeographical and climatic properties that result in higher biodiversity in Turkey. Despite that there are nonignorable amount of area which has not been studied so far for aphid biodiversity. Anatolian diagonal located in study area that is considered one of the important barriers for aphid diversity and play role in speciation. In addition, there is a dam namely GAP that is one of the biggest in Europe. Study is also closed to the species passageway into Turkey from Africa, Asia and some members from Mediterranean.

**Material and Methods:** Study area includes Malatya, Şanlıurfa and Adıyaman provinces located in Eastern and South Eastern part of the Turkey. Aphid species were collected from both naturally and cultured almost all plant species and samples were identified by following generally accepted identification keys.

**Results:** There are climatic and biodiversity predictions indicating that these features are going to influence definitely climatic, agricultural composition and these are going to affect aphid diversity. As a result of the analyses of the preliminary findings from study area, about 170 aphid species were recorded. It has been shown that there are species from North America, Africa, Siberia and Far East that are called as invasive in Turkey. Ratio of the invasive species among determined species about is in accordance with the European and Turkey ratio calculated before which is about 8%. As Turkey is going to be directly affected from results of the global warming, these studies are important not only contribute to the current composition but also give foresight to future changes.

**Acknowledgements:** Authors thank to Turkish Scientific Council (TUBİTAK- Project Number 115Z325) for supporting this study.

**Key words:** Aphid, East and South eastern Turkey.