

## Two new records for the Turkish *Amauromyza* Hendel (Diptera: Agromyzidae) fauna from Aegean Region (Turkey)

Hasan Sungur CİVELEK\* Feyzi ÖNDER\*\* John C. DEEMING\*\*\*

### Summary

This study was carried out in 1997-1998 in Izmir and Muğla provinces. *Amauromyza flavifrons* (Meigen, 1830) in Urla (Izmir) and *Amauromyza luteiceps* (Hendel, 1920) in Gökova (Muğla) were collected from costal vegetations by sweeping. These species are new records for Turkish fauna.

**Key words:** *Amauromyza flavifrons*, *A. luteiceps*, leafminers, new record, Turkey.

**Anahtar sözcükler:** *Amauromyza flavifrons*, *A. luteiceps*, galerisineklere, yeni kayıt, Türkiye.

### Introduction

There are 1800 agromyzids species belonging to 26 genera in the world (Spencer, 1973). Among these them, 776 species were identified in Europe. Up to this study 57 species has been determined in Turkey (Giray, 1980; Uygun et al., 1995; Yabaş et al., 1995; Deeming and Civelek, 1997; Civelek, 1998). Larvae of leafminers feed into the leaves and stems. The plants that are expose to leafminer damage are getting weak by destroying their transmission system. Also adults are transmitted some diseases from infested plants to healthy ones (Civelek and Önder, 1997). In this study was aimed to contribute to the Turkish leafminers fauna.

---

\* Muğla Univ., Ortaca Vocational School, 48600 Ortaca, Muğla, Turkey  
e-mail: chasan@mu.edu.tr

\*\* Ege Univ., Agriculture Faculty, Plant Protection Department, 35100 Bornova, Izmir, Turkey

\*\*\* National Museum&Galleries of Wales, Cathays Park, Cardiff, UK

Alınış (Received): 21.10.1999

## Results

The leafminer species were collected from irregular trips in 1997 from Urla (Izmir) and in 1998 Gökova (Muğla) costal vegetation. The adults of leafminers were collected by sweeping.

In this study, two *Amauromyza* Hendel (Diptera: Agromyzidae) species were new recorded for the Turkish leafminer fauna.

Genus: *Amauromyza* Hendel, 1931

Hendel, 1931: 59. Agromyzidae, **Fliegen pal. Reg.**, 6 (2): 59

Type species: *Agromyza lamii* Kaltenbach, 1858

Kaltenbach, 1858: **Verh. naturh. Ver. preuss. Rheinl.**, 15: 78

Species 1. *Amauromyza flavifrons* (Meigen, 1830)

Meigen, 1830: **Agromyza flavifrons, Syst. Besch.**, 6: 184

Wing length from 1.9 to 2.7 mm; small black species; frons yellow, with 2 ors and 3-4 ori; orbital setulae sparse, reclinate; first and second antennal segments yellow, third black; mesonotum with 3+1 dorsocentral and 4-5 rows acrostichal bristles; costa extending to vein  $M_{1+2}$ ; squamae yellowish-grey, margin and fringe black; halteres bright yellow.

Aedeagus as in Figure 1.

Distribution: Widespread in Europe, extending eastwards to Kirghiz Republic also in Canada (Spencer, 1973 and 1976; Soos and Papp, 1984).

Hosts: The species of Caryophyllaceae such as *Dianthus* spp., *Lychnis* spp., *Melandrium* spp., *Saponaria* spp., *Silene* spp., *Stellaria* spp. and also Chenopodiaceae such as *Beta vulgaris* and *Spinacia oleraceae* (Spencer, 1976, 1990).

In this study, *A. flavifrons* was found in Karapınar, Urla (Izmir) on costal vegetation in 15.7.1997 (1 ♀) by sweeping.



Figure 1. The aedeagus of *Amauromyza flavifrons* (Spencer, 1976).

Species 2. *Amauromyza luteiceps* (Hendel, 1920)

Hendel, 1920: **Dizygomyza luteiceps, Arch. Naturgesch.**, 84A (7): 133

Wing length 2.5 mm, mat greyish - black species; frons broad, twice width of eye; frons bright yellow, with 1 ors, 3-4 ori; orbital setulae sparse reclinate; all antennae black, third segment small, rounded; mesonotum with 3+1 dorsocentral and irregularly 4 rows acrostichal bristles; costa extending to vein  $M_{1+2}$ ; squamae and fringe yellowish; halteres yellow.

Aedeagus as in Figure 2.

Distribution: Algeria, Denmark, England, Finland, Germany, Holland, South Russia and Sweden (Spencer, 1973, 1976; Soos and Papp, 1894).

Hosts: The species of Chenopodiaceae such as *Atriplex* spp. (Spencer, 1990).

In this study, *A. luteiceps* was found in Gökova (Muğla) on costal vegetation in 11.7.1997 (1 ♀) by sweeping.

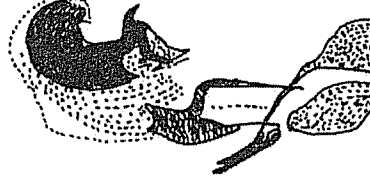


Figure 2. The aedeagus of *Amauromyza luteiceps* (Spencer, 1976).

## Özet

### Türkiye *Amauromyza* Hendel (Diptera: Agromyzidae) faunası için Ege Bölgesinden iki yeni kayıt

Bu çalışma 1997-1998 yılları arasında İzmir ve Muğla illerinde gerçekleştirilmiştir. *Amauromyza flavifrons* (Meigen, 1830) türü Urla (İzmir) ve *Amauromyza luteiceps* (Hendel, 1920) türü Gökova (Muğla) sahil şeridi bitkilerinden atrap yardımıyla toplanmıştır. Teşhis edilen bu iki türün Türkiye galerisinekleri faunası için yeni kayıtlar olduğu bu çalışmayla ortaya konulmuştur.

## References

- Civelek, H. S., 1998. İzmir İlinde Bulunan Agromyzidae (Diptera) Familyasına Bağlı Türler Üzerinde Sistematik Araştırmalar. E.Ü. Fen Bilimleri Enstitüsü Bitki Koruma Anabilim Dalı, Yayınlanmamış Doktora Tezi, Bornova, 169 pp.
- Civelek, H. S. ve F. Önder, 1997. Bitki hastalık etmenlerinin taşınmasında galerisineklerinin (Diptera: Agromyzidae) rolü üzerinde bir inceleme. **Türk. entomol. derg.**, **21** (3): 233-241.
- Deeming, J. C. ve H. S. Civelek, 1997. Türkiye Agromyzidae (Diptera) familyası için yeni kayıtlar. Türkiye 3. Entomoloji Kongresi Bildirileri, 24-28 Eylül, 1996, Ankara: 526-533.
- Giray, H., 1980. Türkiye'de Bitki Yapraklarında Galeri Açan Böcekler Faunasına Ait İlk Liste İle Bunların Konukçu ve Önemlilerinin Galeri Şekilleri Hakkında Notlar. Ege Üniv. Ziraat Fak. Yayınları No: 374, 106 pp.
- Soos, A. and L. Papp, 1984. Catalogue of Palearctic Diptera; Micropezidae, Agromyzidae, Akademiai Kiado, Budapest, **9**: 263-343.
- Spencer, K. A., 1973. Handbooks for the identification of British insects. **Royal entomological society**, **X** (5): 1-136.
- Spencer, K. A., 1976. The Agromyzidae (Diptera) of Fennoscandia and Denmark. **Fauna ento. scandinavica**, **5** (1-2): 1-606.

- Spencer, K. A., 1990. Host Specialization in the World Agromyzidae (Diptera). Kluwer Academic Publishers, Netherlands, 444 pp.
- Uygun, N., Z. Polatöz ve H. Başpınar, 1995. Doğu Akdeniz Bölgesi Agromyzidae (Diptera) familyası türleri üzerinde sistematik arařtırmalar. **Türk. entomol. derg.**, **19** (2): 123-136.
- Yabař, C., H. S. Civelek ve A. Ulubilir, 1995. Türkiye Agromyzidae faunası için yeni bir yaprak galerisineęi, ***Liriomyza huidobrensis*** (Blanchard, 1926). **Türk. entomol. derg.**, **19** (2): 117-122.