

## New records and updated distributions of *Blaesoxipha* Loew, 1861 (Diptera: Sarcophagidae) from Turkey

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### ABSTRACT

Fourteen species belonging to the genus *Blaesoxipha* Loew, 1861 were recorded in Bayburt, Erzincan and Erzurum provinces of Turkey, during 2008-2010. Five species, *Blaesoxipha* (s. str.) *batilligera* Séguy, 1941, *B.* (s. str.) *dupuisi* Léonide and Léonide, 1973, *B.* (s. str.) *unicolor* (Villeneuve, 1912), *B.* (*Servaisia*) *rossica* Villeneuve, 1912 and *B.* (*Tephromyia*) *grisea* (Meigen, 1826) were new records for the Turkish fauna. The number of species belonging to the genus *Blaesoxipha* known from Turkey has been increased from 13 to 18. Illustrations of terminalia for males and new distributions for the previously recorded species were provided.

**Key words:** Diptera, Sarcophagidae, *Blaesoxipha*, new records, Turkey.

### INTRODUCTION

The genus *Blaesoxipha* is containing about 244 valid species worldwide, divided into ten subgenus. Approximately 73 species distributed mainly in the Palearctic and the majority of them belong to the subgenus *Blaesoxipha* and *Servaisia* (Pape, 1996). Species of *Blaesoxipha* are ovularviparous or larviparous and incubate fertilised eggs in a bilobed pouch or uterus arising from the common oviduct (Léonide and Léonide, 1986). The genus contains numerous parasitoids of acridid grasshoppers, tenebrionid beetles, and other Coleoptera, cockroaches and mantids (Pape, 1987, 1994). The females display several types of behaviors to attack their hosts (Pape, 1996). Some phylogenetically more basal New World taxa breed in vertebrate and invertebrate carrion (Pape, 1994).

In the previous works 13 species of *Blaesoxipha* have been reported from Turkey by Pape (1994; 1996), who listed *B. calliste* Pape, 1994, *B. lapidosa* Pape, 1994, *B. laticornis* (Meigen, 1826), *B. lautaretensis* (Villeneuve, 1928), *B. lindneri* Rohdendorf, 1937, *B. litoralis* (Villeneuve, 1911), *B. plumicornis* (Zetterstedt, 1859), *B. pygmaea* (Zetterstedt, 1845) and *B. unguolata* (Pandellé, 1896). The latter *B. cochlearis* (Pandellé, 1894) and *B. rufipes* (Macquart, 1839) recorded by Kara and Pape (2002); *Blaesoxipha ataturkia* Lehrer, 2008 by Lehrer (2008); and *B.* (*Servaisia*) *erythrura* (Meigen, 1826) by Pekbey and Hayat (2010).

The aim of this study is to provide new records, and to update distributional data of *Blaesoxipha* species in Turkey.

## MATERIAL AND METHODS

The specimens were collected from Bayburt, Erzincan and Erzurum provinces of Turkey in 2008-2010. All material was obtained by sweeping from meadows and pasture lands containing a variety of flowering plants by the first author (G. Pekbey).

Most females and some males were identified without dissection by comparison with reference specimens while the terminalia of the some other specimens were dissected for examination (by René Richet, France). The abdomen was removed from the specimens and cleared in 10% KOH solution for 24 h. and transferred to glycerine and then the aedeagus, ST5, cerci and surstyli were separated from the abdomen by cutting. After the identification and drawing, the terminalia were stored in small capsules with glycerol and pinned beneath the specimens and they were deposited in the Entomology Museum, Erzurum, Turkey (EMET).

The classification reported by Pape (1996) and the morphological terminology reported by McAlpine (1981) was followed in this paper. Also, the European distributions of the species were taken from Pape and Beuk (2011).

The following abbreviations are used in the paper: T3 (=abdominal tergite 3), ST5 (=abdominal sternite 5).

## RESULTS

A total of 14 species of *Blaesoxipha* Loew, 1861 (Diptera: Sarcophagidae) were included in this study for Turkey.

Diagnosis of the genus.

The genus *Blaesoxipha* includes medium-sized species. Arista plumose, 3<sup>rd</sup> segment of antennae 1,25 to 2,0 times as long as 2<sup>nd</sup>. Frons narrow in male, 0,1 to 0,2 width of head. Thorax with three post dorso-central and distinct presutural acrostichal bristles. Abdominal terga with three spots which may coalesce into three longitudinal stripes, or abdomen for some species almost entirely grey. Cerci in male characteristically bent. Male terminalia almost hidden below T5 and very small, cercal prongs bent backwards and often terminating in a small hook. In female last sternite of abdomen elongated, ST7 and ST8 fused and forming an ovolarvipositor (Pape, 1987; Rohdendorf, 1988).

### Key to the males of *Blaesoxipha*

1. Narrowest part of parafacial plate 0,40 times of lateral eye width. .... 4
  - Narrowest part of parafacial plate different times of lateral eye width ..... 2
2. T3 with a pair of median marginal bristles ..... 6
  - T3 without median marginal bristles. .... 3
3. 2. costal region 0,88 times of 4. costal region ..... *pygmaea* (Zetterstedt)

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- 2. costal region 1,23 times of 4. costal region . . . . . *grisea* (Meigen)
- 4. Terminalia not protruding and epandrium dark brown. . . . . 5
- Terminalia protruding and epandrium bright red . . . . . *rossica* Villeneuve
- 5. Aedeagus rounded apically (Fig. 1A). . . . . *batilligera* Séguy
- Aedeagus prolonged apically (Fig. 4A). . . . . *lapidosa* Pape
- 6. ST5 “V” shaped. . . . . 7
- ST5 “U” shaped. . . . . 10
- 7. Cerci slightly swollen and a little indented at the postero-median region basally. . 8
- Cerci extremely swollen and indented at the postero-median region basally . . . 9
- 8. Narrowest point of frons 0,65 times of width across eyes . . . . *laticornis* (Meigen)
- Narrowest point of frons 0,72 times of width across eyes. . . . *litoralis* (Villeneuve)
- 9. Apical of aedeagus broad and short (Fig. 9A) . . . . . *rufipes* (Macquart)
- Apical of aedeagus rather long and narrow (Fig. 10A) . . . . *unicolor* (Villeneuve)
- 10. Epandrium dark brown or reddish brown. . . . . 11
- Epandrium bright orange. . . . . *erythrura* (Meigen)
- 11. Mid tibia with an anteroventral setae. . . . . 12
- Mid tibia with two anteroventral setae. . . . . *plumicornis* (Zetterstedt)
- 12. Juxta hook-shaped highly curved and pointed (Fig. 2A). . . *cochlearis* (Pandellé)
- Juxta blunt and slightly curved (Fig. 3A) . . . . . *dupuisi* Léonide and Léonide

***Blaesoxipha* (s. str.) *batilligera* Séguy, 1941 (Fig. 1)**

Material examined: Bayburt, Aydıntepe, 40°22'.62"N, 040°07'.05"E, 1527 m, 17. VI. 2010, 1 ♂.  
Erzurum: Oltu, Aksu, 40°26'.23"N, 041°44'.32"E, 1730 m, 20. VII. 2009, 1 ♂.

Distribution: French mainland, Greek mainland and Switzerland.

Turkish Records: New record for Turkey.

***Blaesoxipha* (s. str.) *cochlearis* (Pandellé, 1896) (Fig. 2)**

Material examined: Erzurum, Yeşilyayla, 40°07'.60"N, 041°24'.51"E, 1918 m, 01. VII. 2010, 1 ♂.

Distribution: Bulgaria, Czech Republic, French mainland, Germany, Hungary, Italian mainland, Poland, Romania, Slovakia, Spanish mainland, Switzerland, Turkey and Ukraine.

Turkish Records: Amasya (Kara and Pape, 2002) and Erzurum (Pekbey and Hayat, 2010).

***Blaesoxipha* (s. str.) *dupuisi* Léonide and Léonide, 1973 (Fig. 3)**

Material examined: Bayburt: Kop mountain, 40°02'.19"N, 040°29.05"E, 2344 m, 23. VI. 2009, 1 ♀.  
Erzurum, Güngörmez, 40°09'.60"N, 041°21'.82"E, 2100 m, 19. VIII. 2009, 1 ♀; Hınıs, 39°21'.38"N, 041°42'.28"E, 1742 m, 02. VII. 2010, 1 ♂; Ilica, Toprakkale, 40°14'.28"N, 040°59'.03"E, 2157 m, 30.

VII. 2010, 1 ♂; Karayazı, Yukarısöylemez, 39°36'.46"N, 041°50'.20"E, 1896 m, 02. VII. 2010, 1 ♂; Oltu, Çamlıbel, 40°29'.06"N, 041°45'.47"E, 1735 m, 21. VII. 2010, 1 ♂; Şenkaya, Sındıran, 40°37'.20"N, 042°21'.34"E, 1409 m, 17. VII. 2010, 1 ♀, 1 ♂; Tekman, Körsu, 39°32'.10"N, 041°43'.45"E, 1940 m, 02. VII. 2010, 1 ♀, 1 ♂.

Distribution: French mainland.

Turkish Records: New record for Turkey.

### ***Blaesoxipha* (s. str.) *lapidosa* Pape, 1994 (Fig. 4)**

Material examined: Bayburt: 40°06'.36"N, 040°25'.36"E, 2400 m, 12. VIII. 2009, 1 ♀; Aşağıkop, 40°03'.48"N, 040°26'.11"E, 1882 m, 22. VI. 2009, 1 ♀, Kop mountain, Şehitlik fountain, 40°01'.95"N, 040°30'.96"E, 2400 m, 21. VIII. 2008, 1 ♀; 40°02'.04"N, 040°31'.02"E, 2358 m, 17. VI. 2010, 1 ♀; Kop mountain, 40°02'.19"N, 040°29'.05"E, 2344 m, 21. VI. 2009, 1 ♀; 40°01'.56"N, 042°37'.59"E, 2398 m, 20. VII. 2009, 4 ♀♀, 1 ♂. Erzurum: 39°50'.20"N, 039°42'.83"E, 1140 m, 09. IX. 2009, 3 ♀♀; Akyazı, 39°43'.98"N, 039°35'.65"E, 1202 m, 11. VI. 2010, 1 ♂; Bahçeköy, 39°47'.24"N, 039°21'.01"E, 1345 m, 01. VI. 2009, 3 ♀♀; Ekşisu, 39°43'.99"N, 039°37'.01"E, 1146 m, 11. VI. 2010, 1 ♂; Tercan, 39°46'.58"N, 040°23'.38"E, 1300 m, 08. IX. 2009, 1 ♀, 1 ♂; Üzümlü, 39°39'.54"N, 039°43'.34"E, 1190 m, 08. IX. 2009, 2 ♀♀; 1157 m; 10. VI. 2010, 1 ♂. Erzurum: Tepeköy, 40°52'.58"N, 041°23'.33"E, 1850 m, 09. VI. 2008, 1 ♀; Güzelyayla, 40°07'.23"N, 041°24'.51"E, 2000 m, 19. VIII. 2009, 1 ♀; Palandöken mountain, 39°46'.48"N, 041°23'.08"E, 2300 m, 20. VII. 2009, 1 ♀; 39°50'.57"N, 041°17'.01"E, 2460 m, 21. VII. 2010, 1 ♀, 3 ♂♂; 39°51'.59"N, 041°16'.20"E, 2112 m, 01. VIII. 2010, 4 ♀♀; Campus of Atatürk University, 39°54'.01"N, 041°14'.34"E 1867 m, 15. V. 2008, 1 ♀; 21. V. 2008, 1 ♀; 04. VII. 2008 1 ♀; 10. VII. 2008, 1 ♀; 01. VI. 2010, 2 ♀♀. Aşkale, Kandilli, 39°54'.19"N, 040°50'.55"E, 1737 m, 01. VIII. 2010, 1 ♂; Central, 39°56'.41"N, 040°41'.47"E 1650 m, 15. VII. 2009, 1 ♀; 12. VIII. 2009, 1 ♀; Çat, Çatköy, 39°36'.03"N, 040°58'.20"E, 1894 m, 29. VI. 2009, 1 ♂; Hınıs, 39°21'.38"N, 041°42'.28"E, 1742 m, 02. VII. 2010, 1 ♀, 2 ♂♂; 39°25'.56"N, 041°42'.18"E, 1882 m, 02. VII. 2010, 1 ♂; Ilıca, Ortadüzü, 40°06'.38"N, 040°36'.13"E, 1900 m, 12. VII. 2009, 4 ♀♀; Rizekent, 40°09'.50"N, 041°00'.00"E, 2070 m, 30. VII. 2010, 4 ♀♀; Toprakkale, 40°14'.28"N, 040°59'.03"E, 2157 m, 30. VII. 2010, 1 ♀; İspir, Madenköprübaşı, 40°26'.14"N, 040°49'.41"E, 1292 m, 30. VII. 2010, 3 ♀♀; Central, 40°29'.27"N, 041°00'.42"E, 1300 m, 07. VIII. 2009, 5 ♀♀, 3 ♂♂; 1259 m, 30. VII. 2010, 1 ♀, 1 ♂; Karayazı, Yukarısöylemez, 39°36'.46"N, 041°50'.20"E, 1896 m, 02. VII. 2010, 2 ♀♀; Köprüköy, 39°59'.11"N, 041°55'.25"E, 1560 m, 16. VI. 2009, 1 ♂; Örentaş, 40°05'.08"N, 041°51'.42"E, 2038 m, 29. VII. 2010, 1 ♀; Narman, Kireçli pass, 40°21'.07"N, 041°41'.41"E, 2400 m, 31. VII. 2010, 4 ♀♀; Central, 40°20'.42"N, 041°54'.49"E, 1635 m, 05. VIII. 2009, 1 ♀; Oltu, Ayvalı, 40°45'.67"N, 041°54'.91"E, 810 m, 08. VI. 2008, 1 ♀; Çamlıbel, 40°29'.06"N, 041°45'.47"E, 1735 m, 21. VII. 2010, 1 ♀; Kaledibi, 40°44'.32"N, 042°11'.10"E, 1074 m, 17. VII. 2010, 2 ♀♀; Tekeli, 40°42'.36"N, 042°09'.36"E, 1072 m, 08. VI. 2008; 40°41'.46"N, 042°09'.36"E, 1079 m, 2 ♀♀, 05. VIII. 2009 2 ♀♀; Olur, Taşlıköy, 40°45'.56"N, 041°58'.10"E, 885 m, 05. VIII. 2009, 1 ♀; Yeşilbağlar, 40°46'.59"N, 042°07'.27"E, 989 m, 16. VI. 2010, 1 ♀; Pasinler, Demirdöven, 40°01'.21"N, 041°43'.58"E, 1727 m, 29. VII. 2010, 1 ♀; Pazaryolu, 40°25'.12"N, 040°46'.13"E, 1250 m, 07. VIII. 2009, 2 ♀♀; 40°25'.12"N, 040°46'.13"E, 1453 m, 30. VII. 2010, 3 ♀♀; Şenkaya, Sındıran, 40°37'.20"N, 042°21'.34"E, 1409 m, 17. VII. 2010, 1 ♂; Tekman, Körsu, 39°32'.10"N, 041°43'.45"E, 1940 m, 02. VII. 2010, 2 ♂♂; Tortum, Aksu, 40°23'.20"N, 041°31'.22"E, 1475 m, 05. VIII. 2010, 3 ♀♀, 1 ♂; 40°25'.59"N, 041°35'.30"E, 1950 m, 05. VIII. 2010, 1 ♂; Arılı, 40°22'.18"N, 041°28'.07"E, 1593 m, 05. VIII. 2010, 1 ♀; Derekapı, 40°23'.66"N, 041°34'.30"E, 1540 m, 15. VI. 2010, 1 ♀; 40°24'.43"N, 041°29'.21"E, 1258 m, 05. VIII. 2010, 2 ♀♀; İncedere, 40°20'.51"N, 041°39'.26"E, 1987 m, 21. VII. 2010, 1 ♀; Central, 40°16'.73"N, 041°33'.49"E, 1653 m, 15. VI. 2010, 4 ♀♀; 40°18'.23"N, 041°31'.48"E, 1573 m, 21. VII. 2010, 1 ♀; Yukarısivri, 40°14'.34"N, 041°31'.47"E, 1539 m, 21. VII. 2010, 1 ♀.

Distribution: Albania, Austria, Bulgaria, Canary IslandS, Corsica, Croatia, Czech Republic, Danish mainland, Finland, French mainland, Germany, Hungary, Italian mainland, Lithuania, Malta, Moldova, Norwegian mainland, Poland, Romania, Sardinia, Slovakia, Slovenia, Spanish mainland, Switzerland, The Netherlands, Turkey, Ukraine and Yugoslavia.

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Turkish Records: No province record in Kara and Pape, 2002; Erzurum (Pekbey and Hayat, 2010).

***Blaesoxipha* (s. str.) *laticornis* (Meigen, 1826) (Fig. 5)**

Material examined: Erzincan: Refahiye, Şahverdi, 39°51'.23"N, 038°49'.13"E, 1800 m, 22. IX. 2010, 1 ♀. Erzurum: Güzelova, 40°26'.16"N, 042°45'.08"E, 1898 m, 23. VII. 2009, 1 ♂; Palandöken mountain, 39°50'.57"N, 041°17'.01"E, 2460 m, 21. VII. 2010, 1 ♂.

Distribution: Austria, Bulgaria, Danish mainland, French mainland, Germany, Italian mainland, Liechtenstein, Poland, Switzerland, Turkey, Ukraine and Yugoslavia.

Turkish Records: No province record in Kara and Pape, 2002.

***Blaesoxipha* (s. str.) *litoralis* (Villeneuve, 1911) (Fig. 6)**

Material examined: Erzincan: Refahiye, 39°53'.57"N, 038°46'.05"E, 1597 m, 22. IX. 2010, 1 ♀. Erzurum: Güngörmez, 40°09'.60"N, 041°21'.82"E, 2100 m, 19. VIII. 2009 1 ♂, 1 ♀; İspir, Madenköprübaşı, 40°26'.14"N, 040°49'.41"E, 1292 m, 30. VII. 2010, 1 ♂; Olur, Ormanağızı, 40°46'.16"N, 042°04'.08"E, 949 m, 08. VI. 2008, 1 ♀; Palandöken mountain, 39°51'.59"N, 041°16'.20"E, 2300 m, 09. VIII. 2009, 1 ♀; Şenkaya, Sındıran, 40°37'.20"N, 042°21'.34"E, 1409 m, 17. VII. 2010, 1 ♂; Taht, 40°38'.29"N, 042°20'.03"E, 1232 m, 17. VII. 2010, 1 ♂; Tekman, Körsu, 39°32'.10"N, 041°43'.45"E, 1940 m, 02. VII. 2010, 1 ♂; Tortum, Aksu, 40°23'.20"N, 041°31'.22"E, 1475 m, 05. VIII. 2010, 1 ♂.

Distribution: Bulgaria, French mainland, Hungary, Spanish mainland, Switzerland, Turkey, Ukraine and Yugoslavia.

Turkish Records: No province record in Kara and Pape, 2002.

***Blaesoxipha* (s. str.) *plumicornis* (Zetterstedt, 1859) (Fig. 7)**

Material examined: Bayburt: Aydıntepe, Arpalı, 40°20'.54"N, 040°07'.27"E, 1526 m, 17. VI. 2010, 1 ♂; Demirözü, 40°13'.99"N, 040°07'.72"E, 1656 m, 17. VI. 2010, 1 ♂; Kop mountain, Şehitlik fountain, 40°01'.95"N, 040°30'.96"E, 2400 m, 21. VIII. 2008, 1 ♂; 40°01'.56"N, 040°37'.59"E, 2344 m, 21. VII. 2009, 1 ♂. Erzincan: Bayırbağ, 39°42'.69"N, 039°41'.28"E, 1350 m, 10. VI. 2010, 2 ♂♂; Mercan, Çaykent, 39°49'.84"N, 040°10'.70"E, 1457 m, 10. VI. 2010, 4 ♂♂; Üzümlü, 39°39'.54"N, 039°43'.34"E, 1190 m, 08. IX. 2009, 1 ♀. Erzurum: Dumlubaba, 40°09'.61"N, 041°21'.43"E, 2400 m, 01. VII. 2010, 5 ♂♂; 40°10'.29"N, 041°18'.67"E, 2616 m, 01. VII. 2010, 1 ♂; Güngörmez, 40°09'.60"N, 041°21'.82"E, 2291 m, 01. VII. 2010, 1 ♀, 2 ♂♂; Yeşildere, 40°07'.83"N, 041°25'.43"E, 2000 m, 19. VIII. 2009 1 ♂; Yeşilyayla, 40°07'.60"N, 041°24'.51"E, 1918 m, 01. VII. 2010, 1 ♀, 3 ♂♂; Aşkale, Kandilli, 39°54'.19"N, 040°50'.55"E, 1737 m, 01. VIII. 2010, 1 ♂; 39°56'.41"N, 040°41'.47"E, 1750 m, 15. VII. 2009, 2 ♂♂; Köprüköy, Güzelhisar, 39°49'.41"N, 041°59'.30"E, 1930 m, 02. VII. 2010, 1 ♀; Palandöken mountain, 39°50'.57"N, 041°17'.01"E, 2460 m, 21. VII. 2010, 3 ♂♂; Pazaryolu, 40°25'.12"N, 040°46'.13"E, 1250 m, 07. VIII. 2009, 1 ♂; Tortum, Aksu, 40°23'.20"N, 041°31'.22"E, 1475 m, 05. VIII. 2010, 2 ♂♂; Central, 40°16'.73"N, 041°33'.49"E, 1653 m, 15. VI. 2010, 2 ♂♂; Yukarısivri, 40°14'.34"N, 041°31'.47"E, 1539 m, 21. VII. 2010, 1 ♂.

Distribution: Albania, Austria, Belarus, Belgium, Britain, Bulgaria, Corsica, Czech Republic, Danish mainland, Estonia Finland, French mainland, Germany, Hungary, Italian mainland, Latvia, Norwegian mainland, Poland, Slovakia, Sweden, Switzerland, The Netherlands, Turkey, Ukraine and Yugoslavia.

Turkish Records: No province record in Kara and Pape, 2002; Erzurum (Pekbey and Hayat, 2010).

***Blaesoxipha* (s. str.) *pygmaea* (Zetterstedt, 1844) (Fig. 8)**

Material examined: Bayburt: Aydıntepe, Arpalı, 40°20'.54"N, 40°07'.27"E, 1526 m, 17. VI. 2010, 1 ♂. Erzincan: Avcılar, 39°36'.73"N, 039°49'.65"E, 1200 m, 25. VII. 2010, 1 ♂.

Distribution: Croatia, Danish mainland, French mainland, Germany, Italian mainland, Turkey, Poland and Switzerland.

Turkish Records: No province record in Kara and Pape, 2002.

***Blaesoxipha* (s. str.) *rufipes* (Macquart, 1839) (Fig. 9)**

Material examined: Bayburt: Kop mountain Şehitlik fountain, 40°02'.04"N, 40°31'.02"E, 2358 m, 17. VI. 2010, 1 ♂. Erzincan: Tercan, 39°46'.58"N, 40°23'.38"E, 1300 m, 08. IX. 2009, 2 ♂♂. Erzurum: Güngörmez, 40°09'.60"N, 041°21'.82"E, 2100 m, 19. VIII. 2009, 1 ♂; İspir, 40°29'.27"N, 041°00'.42"E, 1300 m, 07. VIII. 2009, 1 ♂; Karayazı, Yukarısöylemez, 39°36'.46"N, 041°50'.20"E, 1896 m, 02. VII. 2010, 1 ♂; Olur, Taşlıköy, 40°45'.56"N, 041°58'.10"E, 885 m, 20. VII. 2009, 1 ♂.

Distribution: Canary Islands, Cyprus, French mainland, Italian mainland, Spanish mainland, Turkey and Ukraine.

Turkish Records: Antalya (Kara and Pape, 2002).

***Blaesoxipha* (s. str.) *ungulata* (Pandellé, 1896)**

Material examined: Erzurum: Dumlubaba, 40°09'.61"N, 041°21'.43"E, 2400 m, 01. VII. 2010, 1 ♀; 40°09'.95"N, 041°20'.68"E, 2520 m, 01. VII. 2010, 1 ♀; Tekman, Körsu, 39°32'.10"N, 041°43'.45"E, 1940 m, 02. VII. 2010, 1 ♀.

Distribution: Andorra, Bulgaria, Czech Republic, French mainland, Hungary, Italian mainland, Poland, Spanish mainland, Switzerland, Ukraine and Yugoslavia.

Turkish Records: No province record in Kara and Pape, 2002.

***Blaesoxipha* (s. str.) *unicolor* (Villeneuve, 1912) (Fig. 10)**

Material examined: Erzincan: Refahiye, Şahverdi, 39°51'.23"N, 038°49'.13"E, 1800 m, 22. IX. 2010, 1 ♂. Erzurum: Güzelyayla, 40°07'.23"N, 041°24'.51"E, 2000 m, 19. VIII. 2009, 1 ♀; Yeşilyayla, 40°07'.60"N, 041°24'.51"E, 1918 m, 01. VII. 2010, 1 ♂; Hınıs, 39°25'.56"N, 041°42'.18"E, 1882 m, 02. VII. 2010, 1 ♂; İlica, Rizekent, 40°09'.50"N, 041°00'.00"E, 2070 m, 30. VII. 2010, 3 ♂♂; Palandöken mountain, 39°50'.57"N, 041°17'.01"E, 2460 m, 21. VII. 2010, 3 ♂♂; Şenkaya, Sındıran, 40°37'.20"N, 042°21'.34"E, 1409 m, 17. VII. 2010, 3 ♂♂; Tortum, Aksu, 40°25'.59"N, 041°35'.30"E, 1950 m, 05. VIII. 2010, 1 ♂.

Distribution: Andorra, Bulgaria, Croatia, French mainland, Hungary, Italian mainland, Spanish mainland, Switzerland, Ukraine and Yugoslavia.

Turkish Records: New record for Turkey.

***Blaesoxipha* (*Servaisia*) *erythrura* (Meigen, 1826) (Fig. 11)**

Material examined: Erzurum: Dumlubaba, 40°09'.61"N, 041°21'.43"E, 2400 m, 01. VII. 2010, 12 ♀♀, 11 ♂♂; 40°10'.29"N, 041°18'.67"E, 2616 m, 01. VII. 2010, 1 ♀, 1 ♂; 40°09'.95"N, 041°20'.68"E, 2520 m, 01. VII. 2010, 1 ♀, 1 ♂; Güngörmez, 40°09'.60"N, 041°21'.82"E, 2291 m, 01. VII. 2010, 3 ♀♀, 11 ♂♂; Palandöken mountain, 39°50'.57"N, 041°17'.01"E, 2460 m, 21. VII. 2010, 1 ♀; Yeşilyayla, 40°07'.60"N,

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041°24'.51''E, 1918 m, 01. VII. 2010, 4 ♀♀, 4 ♂♂; Oltu, Çamlıbel, 40°29'.06''N, 041°45'.47''E, 1735 m, 21. VII. 2010, 1 ♀; Tortum, İncedere, 40°20'.51''N, 041°39'.26''E, 1987 m, 21. VII. 2010, 1 ♀.

Distribution: Austria, Belarus, Belgium, Britain, Bulgaria, Czech Republic, Estonia, Finland, French mainland, Germany, Greek mainland, Hungary, Italian mainland, Lithuania, Poland, Slovakia, Spanish mainland, Sweden, Switzerland, Turkey, Ukraine and Yugoslavia.

Turkish Records: Erzurum (Pekbey and Hayat, 2010).

***Blaesoxipha (Servaisia) rossica Villeneuve, 1912 (Fig. 12)***

Material examined: Erzurum: Abdurrahman Gazi, 39°52'.38''N, 041°18'.37''E, 2191 m, 01. VIII. 2010, 1 ♀; Dumlubaba, 40°09'.61''N, 041°21'.43''E, 2400 m, 01. VII. 2010, 2 ♀♀, 3 ♂♂; Güngörmez, 40°09'.60''N, 041°21'.82''E, 2291 m, 01. VII. 2010, 1 ♂; Hınıs, 39°21'.38''N, 041°42'.28''E, 1742 m, 02. VII. 2010, 1 ♂; Ilica, Toprakkale, 40°14'.28''N, 040°59'.03''E, 2157 m, 30. VII. 2010, 2 ♂♂; İspir, 40°29'.27''N, 041°00'.42''E, 1300 m, 07. VIII. 2009, 1 ♀; Oltu, Çamlıbel, 40°29'.06''N, 041°45'.47''E, 1735 m, 21. VII. 2010, 1 ♂; Tortum, Aksu, 40°23'.20''N, 041°31'.22''E, 1475 m, 05. VIII. 2010, 3 ♂♂; Aksu, 40°25'.59''N, 041°35'.30''E, 1950 m, 05. VIII. 2010, 1 ♂; Derekapı, 40°24'.43''N, 041°29'.21''E, 1258 m, 05. VIII. 2010, 1 ♂; İncedere, 40°20'.51''N, 041°39'.26''E, 1987 m, 21. VII. 2010, 1 ♂.

Distribution: Albania, Austria, Britain, Bulgaria, Czech Republic, Danish mainland, Estonia, French mainland, Germany, Hungary, Italian mainland, Norwegian mainland, Poland, Romania, Slovakia, Switzerland, Ukraine and Yugoslavia.

Turkish Records: New record for Turkey.

***Blaesoxipha (Tephromyia) grisea (Meigen, 1826) (Fig. 13)***

Material examined: Erzurum: Ilica, Rizekent, 40°09'.50''N, 041°00'.00''E, 2070 m, 30. VII. 2010, 1 ♂.

Distribution: Albania, Austria, Belarus, Belgium, Bulgaria, Czech Republic, French mainland, Germany, Hungary, Italian mainland, Moldova, Poland, Romania, Slovakia, Slovenia, Spanish mainland, Switzerland, Ukraine and Yugoslavia.

Turkish Records: New record for Turkey.

## DISCUSSION

The results of this study, suggest that some species are widespread and more frequently captured (e.g. *B. lapidosa*, *B. litoralis*, *B. plumicornis*, *B. unicolor*, *B. erythrura* and *B. Rossica*) *Blaesoxipha batilligera*, *B. cochlearis*, *B. grisea* and *B. pygmea* were represented by one or few specimens. Furthermore, only females of *B. unguolata* and only males of *B. rufipes*, *B. pygmea*, *B. batilligera* and *B. grisea* were obtained from the research areas. It is important to note that within the newly recorded species whereas *B. rossica*, *B. grisea* and *B. unicolor* have very extended distribution and *B. batilligera* (France, Greece and Switzerland) and *B. dupuisi* (France) have a very limited distribution in the European countries.

Together with these new records, the number of species belonging to the genus *Blaesoxipha* from Turkey have been raised from 13 to 18 and the distribution of previously known species are updated.



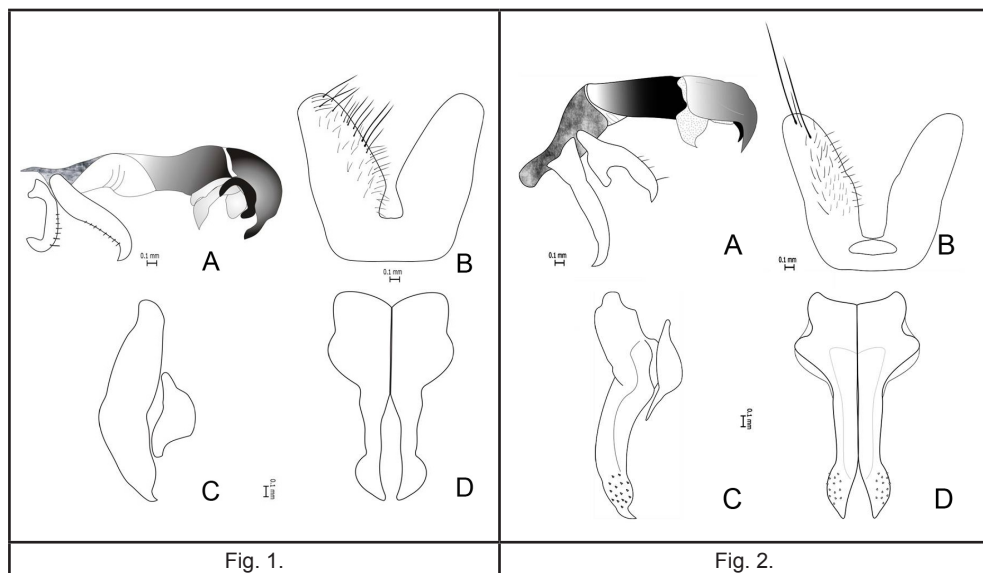


Fig. 1. *Blaesoxipha* (s. str.) *batilligera* Séguy, terminalia ♂, A) aedeagus, B) ST5, C) cerci and surstyli lateral view, D) cerci posterior view.

Fig. 2. *Blaesoxipha* (s. str.) *cochlearis* (Pandellé), terminalia ♂, A) aedeagus, B) ST5, C) cerci and surstyli lateral view, D) cerci posterior view.

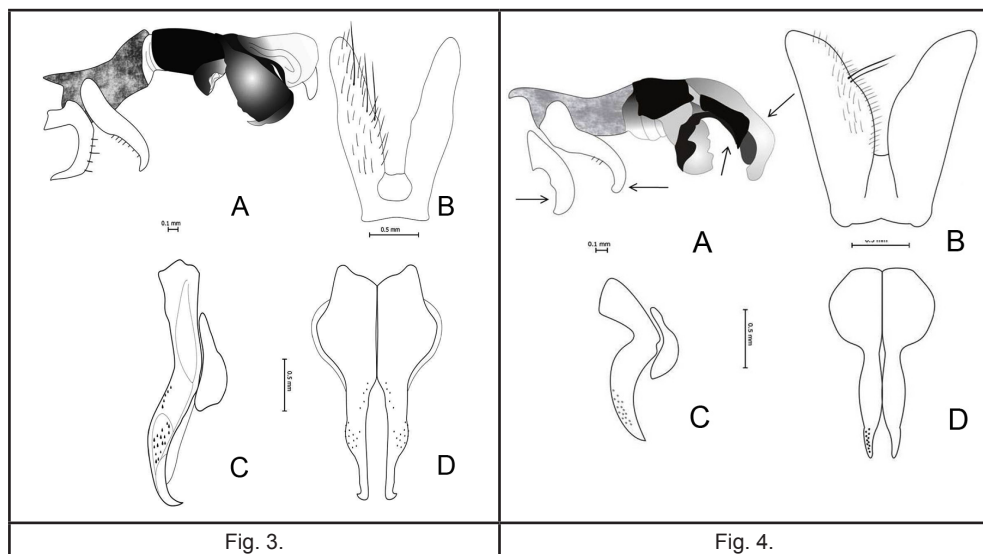


Fig. 3. *Blaesoxipha* (s. str.) *dupuisi* Léonide and Léonide, terminalia ♂, A) aedeagus, B) ST5, C) cerci and surstyli lateral view, D) cerci posterior view.

Fig. 4. *Blaesoxipha* (s. str.) *lapidosa* Pape, terminalia ♂, A) aedeagus, B) ST5, C) cerci and surstyli lateral view, D) cerci posterior view.



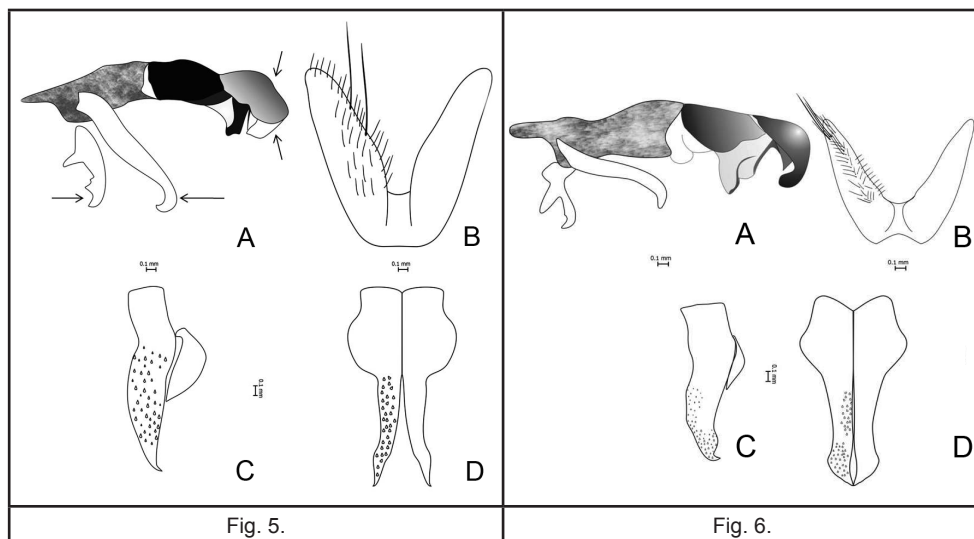


Fig. 5. *Blaesoxipha* (s. str.) *laticornis* (Meigen), terminalia ♂, A) aedeagus, B) ST5, C) cerci and surstyli lateral view, D) cerci posterior view.

Fig. 6. *Blaesoxipha* (s. str.) *litoralis* (Villeneuve), terminalia ♂, A) aedeagus, B) ST5, C) cerci and surstyli lateral view, D) cerci posterior view.

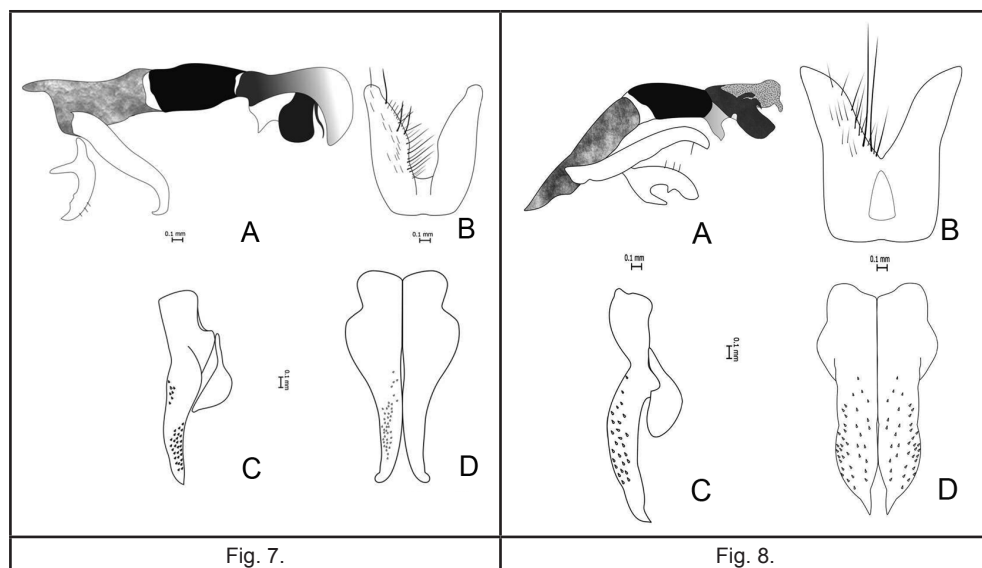


Fig. 7. *Blaesoxipha* (s. str.) *plumicornis* (Zetterstedt), terminalia ♂, A) aedeagus, B) ST5, C) cerci and surstyli lateral view, D) cerci posterior view.

Fig. 8. *Blaesoxipha* (s. str.) *pygmaea* (Zetterstedt), terminalia ♂, A) aedeagus, B) ST5, C) cerci and surstyli lateral view, D) cerci posterior view.

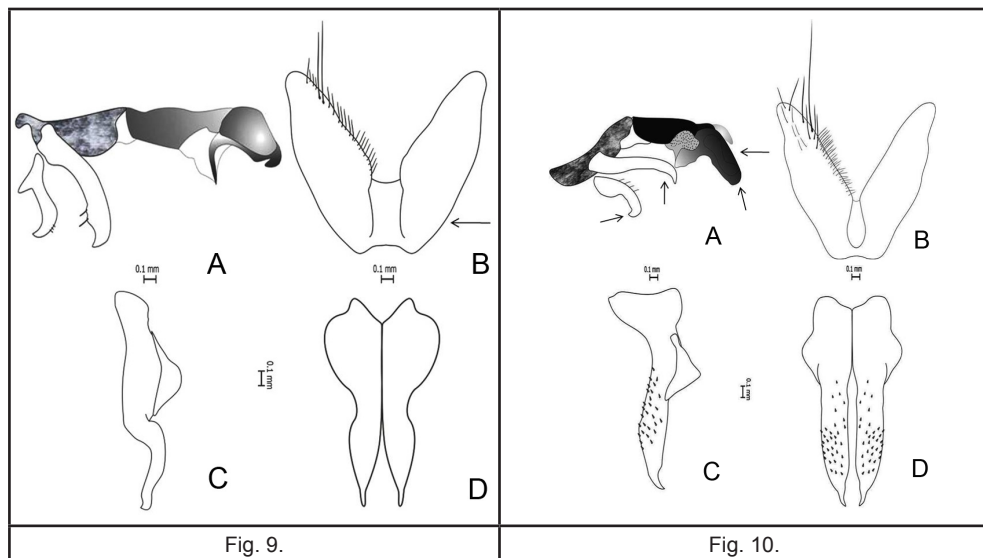


Fig. 9. *Blaesoxipha* (s. str.) *rufipes* (Macquart), terminalia ♂, A) aedeagus, B) ST5, C) cerci and surstyli lateral view, D) cerci posterior view.

Fig. 10. *Blaesoxipha* (s. str.) *unicolor* (Villeneuve), terminalia ♂, A) aedeagus, B) ST5, C) cerci and surstyli lateral view, D) cerci posterior view.

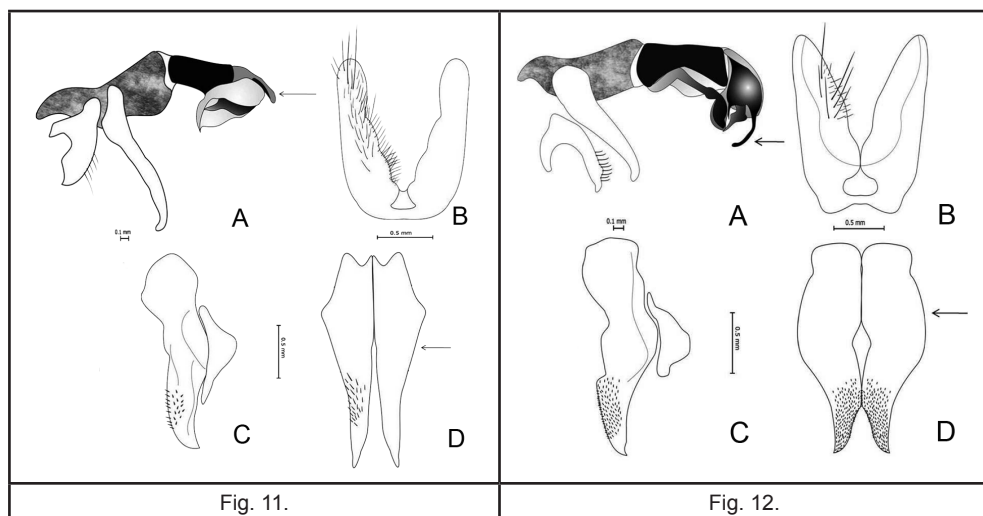


Fig. 11. *Blaesoxipha* (*Servaisia*) *erythrura* (Meigen), terminalia ♂, A) aedeagus, B) ST5, C) cerci and surstyli lateral view, D) cerci posterior view.

Fig. 12. *Blaesoxipha* (*Servaisia*) *rossica* Villeneuve, terminalia ♂, A) aedeagus, B) ST5, C) cerci and surstyli lateral view, D) cerci posterior view.

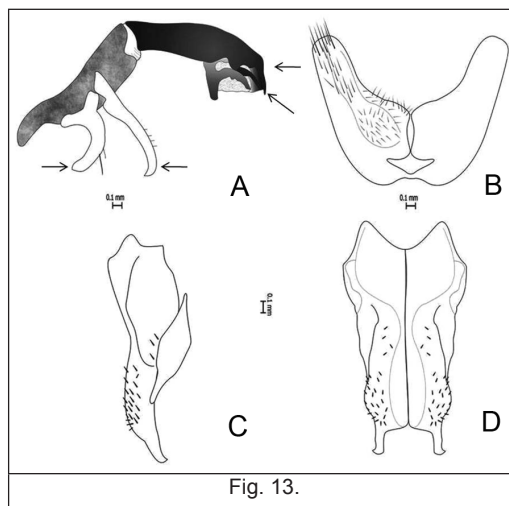


Fig. 13. *Blaesoxipha* (*Tephromyia*) *grisea* (Meigen), terminalia ♂, A) aedeagus, B) ST5, C) cerci and surstyli lateral view, D) cerci posterior view.

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