

## First record of *Physiphora demandata* (Fabricius, 1798) (Diptera: Ulidiidae) from Jeddah, Kingdom of Saudi Arabia

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**Abstract:** The picture-winged flies (Diptera: Ulidiidae) present almost worldwide, with more than half of the species and 75% of the genera in the Neotropical Region. The fauna of the Arabian Peninsula contains almost exclusively species of the genus *Physiphora* Fallén (Kameneva and Korneyev, 2010). One species was recorded previously from Yemen by Hendel (1913). In the Kingdom of Saudi Arabia two species of Ulidiidae, *Physiphoraalceae* (Preyssler) and *Physiphorasmaragdina* (Loew) were recognized and the Saudi Arabian genera and species are keyed by Al-Dhafer and El-Hawagry (2016).

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**Keywords:** record; *Physiphora demandata*; Jeddah; Kingdom of Saudi Arabia

During November 2015, in Jeddah city, the kingdom of Saudi Arabia, fly specimens was collected using sweeping net for the collection of fauna associated with domestic rabbit carrion which was placed in agricultural area. The carrion at the time of collection was in fresh stage of decomposition, the temperature and relative humidity were varied from 22.2°C to 29.4°C and 28.5% to 54.25 %, respectively. The collected flies were identified by natural history museum (NHM). The material is stored in 95% ethyl alcohol and kept in the Biology department of the King Abdulaziz University, Faculty of Science.

The fly species was identified as *Physiphora demandata* (Fabricius, 1798), this is the first record of this species in the kingdom of Saudi Arabia. This fly species belong to Superfamily Tephritoidea, family Ulidiidae, and belong to Subfamily (tribe) Ulidiinae. According to Kameneva and Korneyev (2005) the Subfamily Ulidiinae Macquart, 1835 contains the following four tribes, Seiopterini (predominantly Holarctic), Ulidiini (Old World) and Pterocallini and Lipsanini (predominantly Neotropical tribes). The tribe Ulidiini comprises 3 Old World genera. *Physiphora*, *Ulidia* and *Timia*. The Genus *Physiphora* Fallén, 1810 is predominantly African, with a few endemic species in the Oriental Region and Solomon Islands, and some synanthropic species introduced into the New World and Australasia, whereas *Ulidia* and *Timia* are most abundant in all semiarid and arid areas of the Palearctic Region. In the recent study this species, *Ph. demandata* was present in very low numbers compared with other flies and only adults were found. *Ph. demandata* Widespread in Eurasia, Africa, Arabia, Italy, UK and also Colorado, Hawaii, Wisconsin, Nearctic region (Sivinski, 1997). It was recorded previously in 1971 in Diego Garcia between

March 19 and May 23 (Hutson,1981). In Bangalore, India, *Ph. demandata* was reported by Bai and Sankaran (1977) from bovine manure. Carles-Tolrá (1993) proved the presence of *Ph. demandata* in Catalonia, Spain. It has been reported in Turkey by Sivinski (1997) from wounds in date palm and feedlots and dairies, and observed coaxing honeydew from aphids on burdock. It was also present in Turkey in 1998 among the insect fauna of Turkish cherry orchards (Civelek and Tezcan, 2005).

*Ph. demandata* was recorded in British Colombia among checklist contains insect species associated with native pines at the time from 1949-1982 (Evans, 1983). Evenhuis and Eldredge (2004) recorded this species in the Hawaiian Islands as adventive (introduced) species. Carles-Tolrá (1994) recorded a list with 353 dipterous species (and subspecies) of Catalonia (northeast of Spain), belonging to 34 families of the Acalyptrata-group. These families order included Curtonotidae (*Curtonotum anus* (Meigen, 1830) and Ulidiidae (*Physiphorademandata* (Fabricius, 1798).

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