



# Türkiye'de Zika virus olası vektörü Aedes türlerine yönelik bir sistematik analiz

Uzm.Dr. Mustafa Hatipoğlu

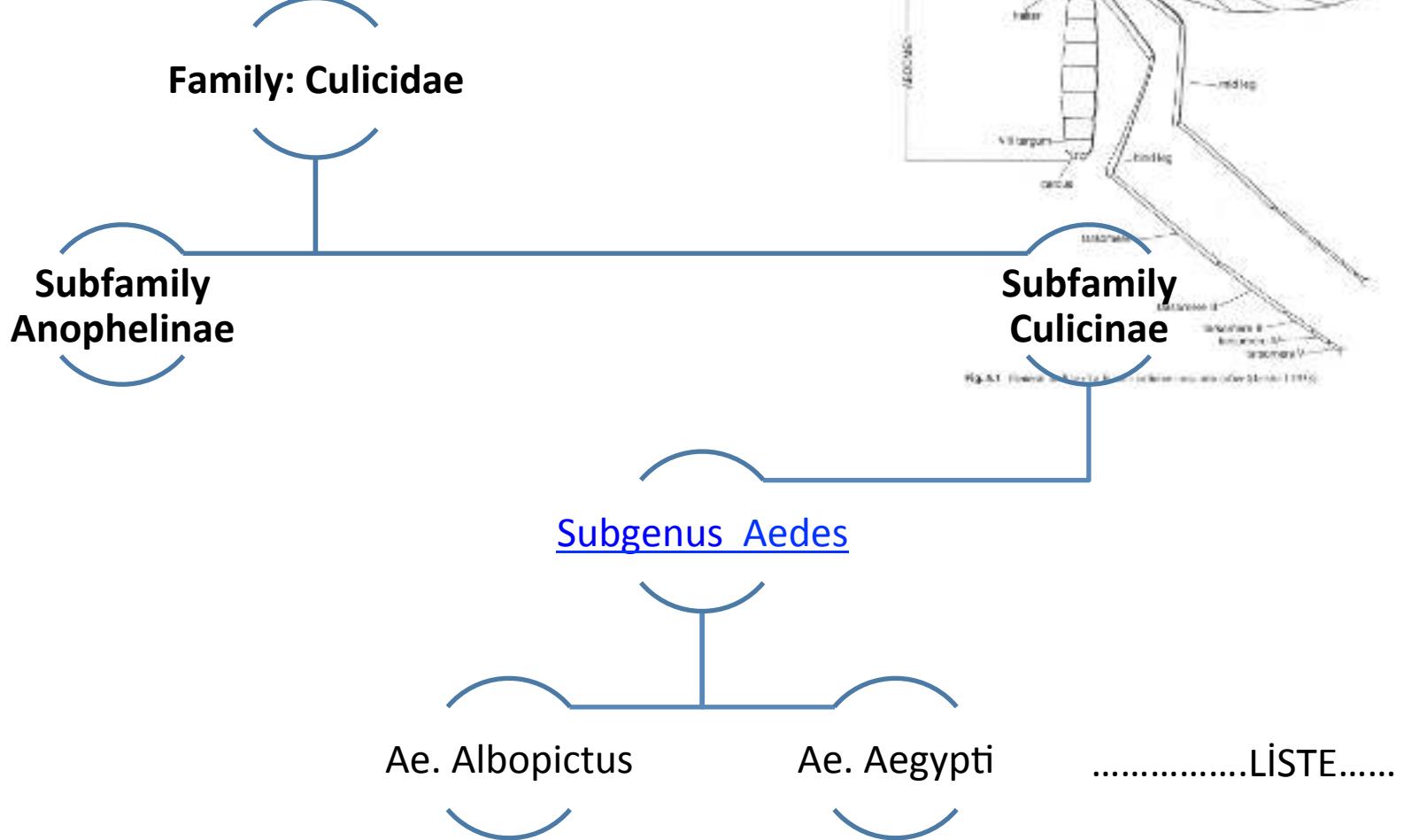
Prof.Dr. Vedat Turhan

SS-010

12 Mayıs 2016 9:00-10:30

# Vektör

- ARthropod-BOrne virus; **ARBOVİRAL ENF**
- Mosquito-borne virus
- **Aedes aegypti/albopictus:**
- Flavivirus
  - Sarı ateş,
  - Dengue
  - Zika virüs,
- Alpha virus; Chikungunya (togaviridea,.)
- **Culex spp.**
- **Aedes atropalpus**
  - Flavivirus
  - WNV



# Sivrisinek;Aedes (Ae.) spp

## Ae. albopictus

- *Stegomyia albopicta* diğer ad?
- Kaplan / orman sivrisineği
- Bacaklar ve gövdede **siyah beyaz**
- Karıştırılan; Ae cretinus,
  - Dr. İzzet şahin
  - 1979, alanya



*Aedes albopictus*

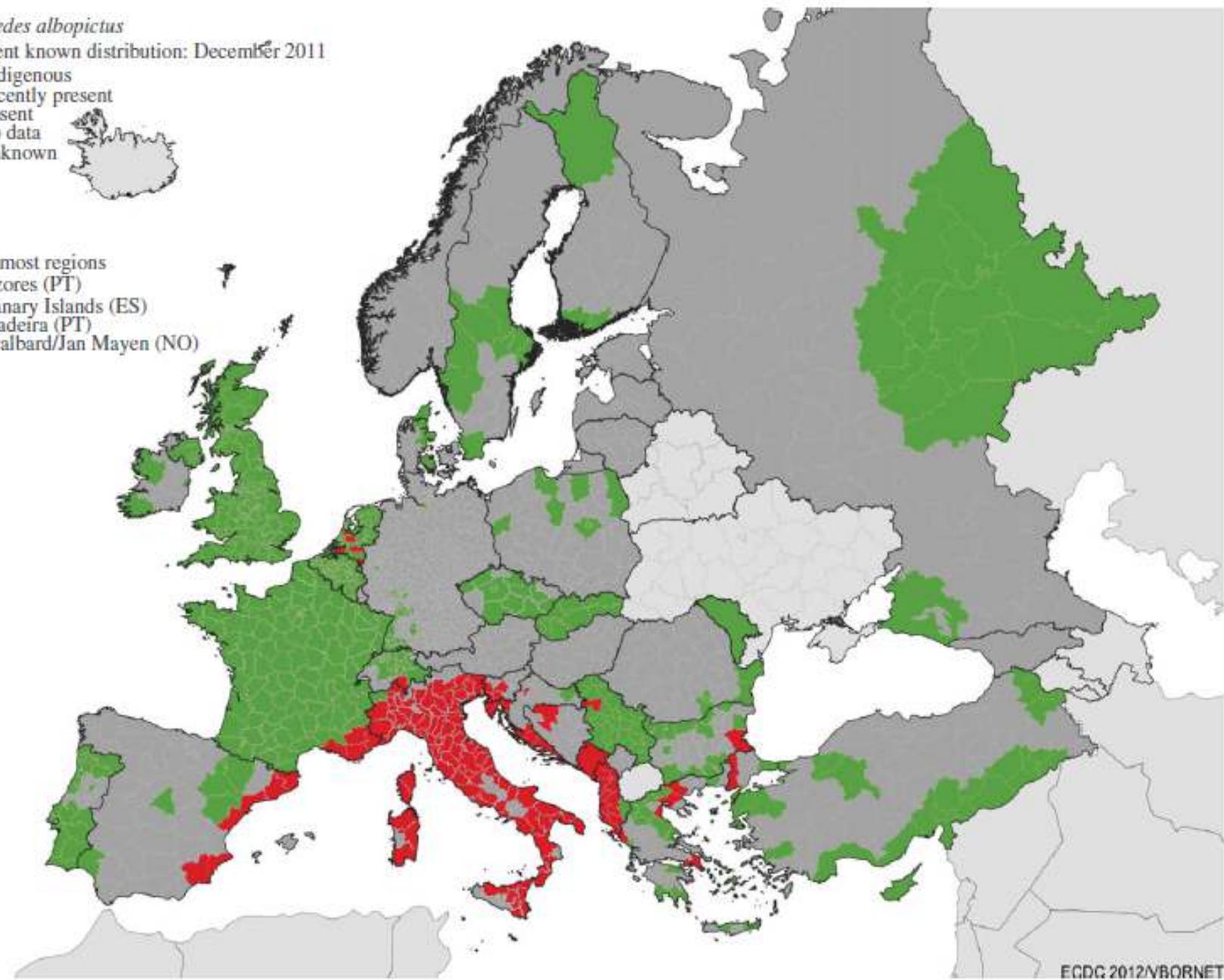
current known distribution: December 2011

- indigenous
- recently present
- absent
- no data
- unknown

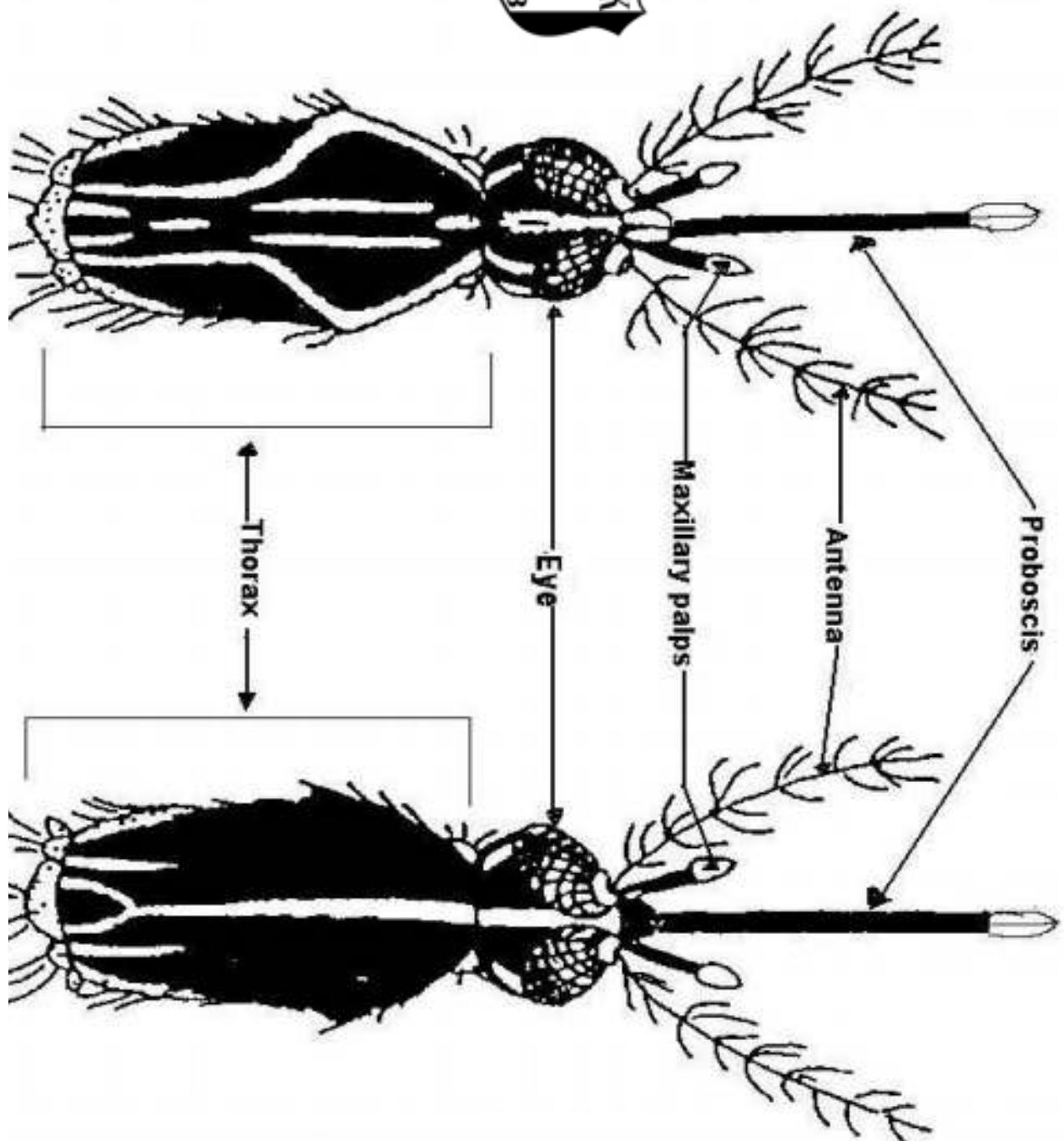


outermost regions

- Azores (PT)
- Canary Islands (ES)
- Madeira (PT)
- Svalbard/Jan Mayen (NO)



*Aedes aegypti*



*Aedes albopictus*





# Metod

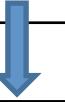
Ulakbim tüm alanlar;18 çalışma



başka ülke 3, insektisid çalışması 2 ,konu ile ilgisiz 4, Culex pipiens ile ilgili 2, olgu sunumu (Bir import deng ve bir chikungunya;import)



Ulakbim 5



Ae.aegypti bulunan 1 çalışma

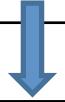
Pubmed 29 çalışma



Aynı datadan ikinci çalışma 1, başka ülke epidemiyolojisi 3, aedes epidemiyolojisi dışında konu 15, duplicate çalışma 3.



Pubmed 8



Ae. Albopictus 1, Ae albopictus ve aegypti birlikte olan bir çalışma

Yazar	yılı	Bölge	Ae.Aegypti	Ae.albopictus	Diger Aedes türleri	Diger Aedes dici türler	NOT
Duzlu ö.	2016	Kayseri	Negatif	Negatif	Ae.vexans	Culex (Cx.) pipiens, Cx. hortensis, Cx. theileri, Culiseta annulata, and Anopheles maculipennis	F.tularensis vektörü yönünden negatifler.
MM Akiner	2016	Doğu Karadeniz	Positif%	Positif%			Aedes Aegypti ve albopictus yayılabilceği.
Harun Albayrak	2013	Orta ve Doğu Karadeniz	?	?	Aedes spp	Anopheles spp. Culex spp.Culicoides spp	PCR ile kene ve sivrisineklerde Flavivirus bulunmamış.
Öter k.	2013	Edirne (keşan-ipsala)	Negatif	Ae.albopictus			
İnci a.	2012	Kayseri	Negatif	Negatif	Ae.vexans	Culex pipens, Culex theileri and Culiseta annulata	
Kuclu o.	2011	Aras vadisi (kars-ığdır)	?	?	Ae.vexans		
Zuhal Bişkin	2010	Kayseri	Negatif	Negatif	Aedes vexans, (%31,9)	Culex pipiens (%68,1)	Aedes vexans türünün araştırma yöresinde D. immitis'in potansiyel vektörü olduğu belirlenmiştir.
Aldemir A.	2010	İğdir	Negatif	Negatif	Ae.vexans% 6.6, Ae. Dorsalis %47, Ae.caspis %4.9	Anopheles hyrcanus (Pallas) (22.9%), Culex theileri (Theobald) (9.3%),Anopheles maculipennis s.l. (Meigen) (3.1%), Culex territans (Walker) (2.8%), Coquillettidia richiardii (Ficalbi) (1.6%), and Cx. pipiens L. (1.5%).	
Adnan Aldemir	2009	İğdir	Negatif	Negatif	Ae. dorsalis %33.69, Ae. Vexans (%15.19), Ae. caspius (%10.33)	An. maculipennis s.s. (%23.02), Cx. theileri (%11.3),Cx. pipiens'in (%2.25)	
Özer N	2006	Şanlıurfa	?	?	Ae.spp %20 Ae.caspis %24	Culex %56,	wnv insan serum örneklerinde %16
çağlar SS	2003	Antalya	Negatif	Negatif	Ae.dorsalis, Ae. caspius, Ae. Cretinus	Culex pipiens, Cx. tritaeniorhynchus and Culiseta annulata	
Alten B	2000	Antalya	Negatif	Negatif	Ae.dorsalis 8.7, Ae. Caspius 23.4, Ae. Cretinus23.4, Ae.vexans 0.1	Cx. pipiens (26.7%), Cx. tritaeniorhynchus (23.8%), Cs. annulata (6.2%).	
Hasan Eren	1996	Ankara	17 (%0.5)	Negatif	6 tür	Culex pipiens %47 ensik. 20 tür.	Culicidea 4 soy, 20 tür saptanmış.

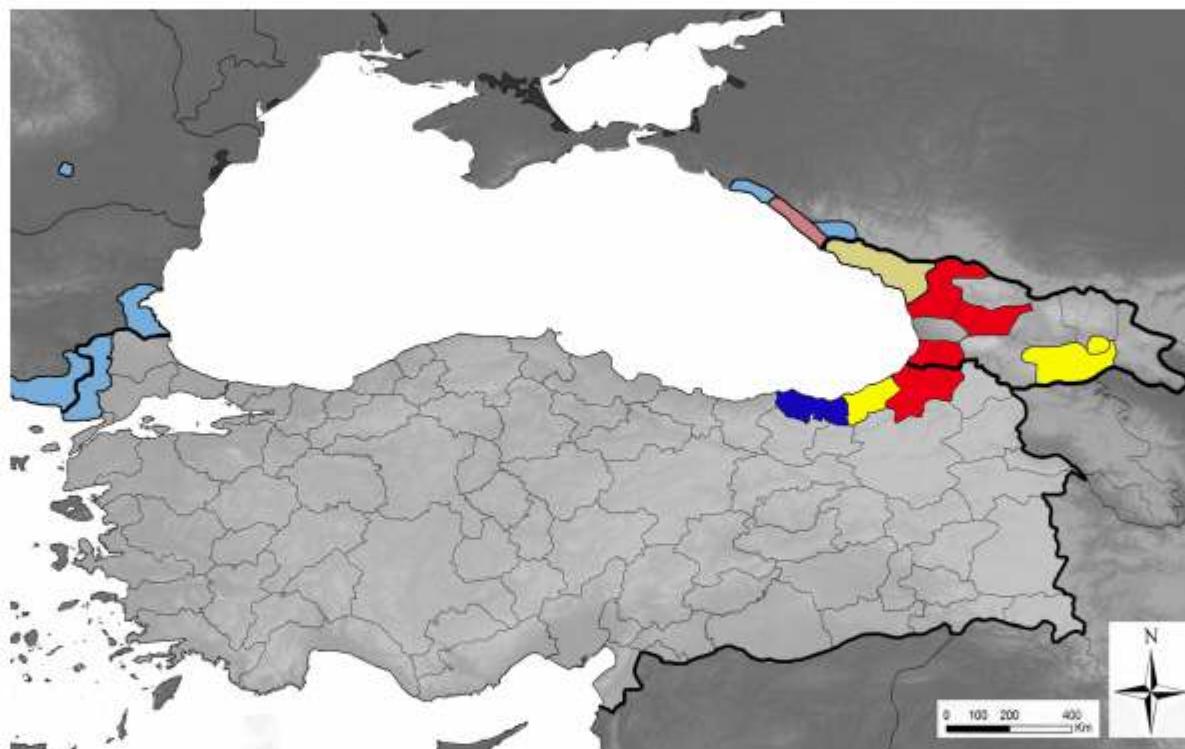
Yazar	Yayınlığı	Bölge	Ae. Aegypti	Ae. albopictus	Diğer Aedes türleri	Diğer Aedes dışı türler	NOT
MM Akıner	2016	Doğu Karadeniz	+	+			Aedes Aegypti ve albopictus yayılabileceği.
Öter k.	2013	Edirne (keşan-ipsala)	-	+			
Hasan Eren	1996	Ankara	(%0.5)	-	6 tür	Culex pipiens %47 ensik. 20 tür.	culicidea 4 soy, 20 tür saptanmış.

# Spread of the Invasive Mosquitoes *Aedes aegypti* and *Aedes albopictus* in the Black Sea Region Increases Risk of Chikungunya, Dengue, and Zika Outbreaks in Europe

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**Fig 1.** Current known distribution of *Aedes aegypti* and *Aedes albopictus* in the Black Sea region. Presence of the mosquito species is shown at province/district level (except for Russia, where the colonised area is much undersized). Light colours: known distribution up to August 2015; Dark colours: surveillance results, September 2015; Yellow: presence of *Aedes aegypti*, the yellow fever mosquito, only; blue: presence of *Aedes albopictus*, the tiger mosquito, only; red: presence of both *Ae. aegypti* and *Ae. albopictus*. AM: Armenia; AZ: Azerbaijan; BG: Bulgaria; GE: Georgia; GR: Greece; IQ: Iraq; IR: Iran; RO: Romania; RU: Russia; SY: Syria; TR: Turkey; UA: Ukraine.

## 2-hour Oral Session

### Emerging viruses: what about "Tick", "Chik" and "Zik"?

**First reporting of Chikungunya virus as well as West Nile virus and mosquito-specific flaviviruses in field-collected mosquitoes from Mediterranean, Aegean, and Thrace regions, Turkey**

Koray Ergunay<sup>\*1</sup>, Filiz Gunay<sup>2</sup>, Sırri Kar<sup>3</sup>, Kerem Oter<sup>4</sup>, Serra Orsten<sup>5</sup>, Yasemen Sarikaya<sup>2</sup>, Ozge Erisoz Kasap<sup>2</sup>, Bulent Alten<sup>2</sup>, Yvonne-Marie Linton<sup>6</sup>

June-August 2015

sites in Aegean (32, 17%), Mediterranean (44, 23.4%) and Thrace (112, 59.5%) regions. Generic Alphavirus and Flavivirus PCRs revealed positive results in 2 (1.1%) and 8 (4.3%) pools, respectively. Repeat testing and sequencing revealed Alphavirus positive specimens to be characterized as Chikungunya virus (CHIKV). Positive results originated from *An. maculipennis* sensu lato and *Ae.*

