Invazivni komarci i pojavnost novih bolesti u starom svijetu

Seminar iz kolegija Zdravstvena i veterinarska entomologija

Ana Depolo

2. godina diplomskog studija Znanosti o okolišu

Aedes albopictus (Skuse, 1895)

Azijski tigrasti komarac

porodica: Culicidae

100 najgorih invazivnih stranih vrsta (IUCN)

- tipski lokalitet: Calcutta, Indija
- prirodna rasprostranjenost: tropska i suptropska područja jugoistočne Azije
- **Patogeni koje prenosi (ukupno 27):**

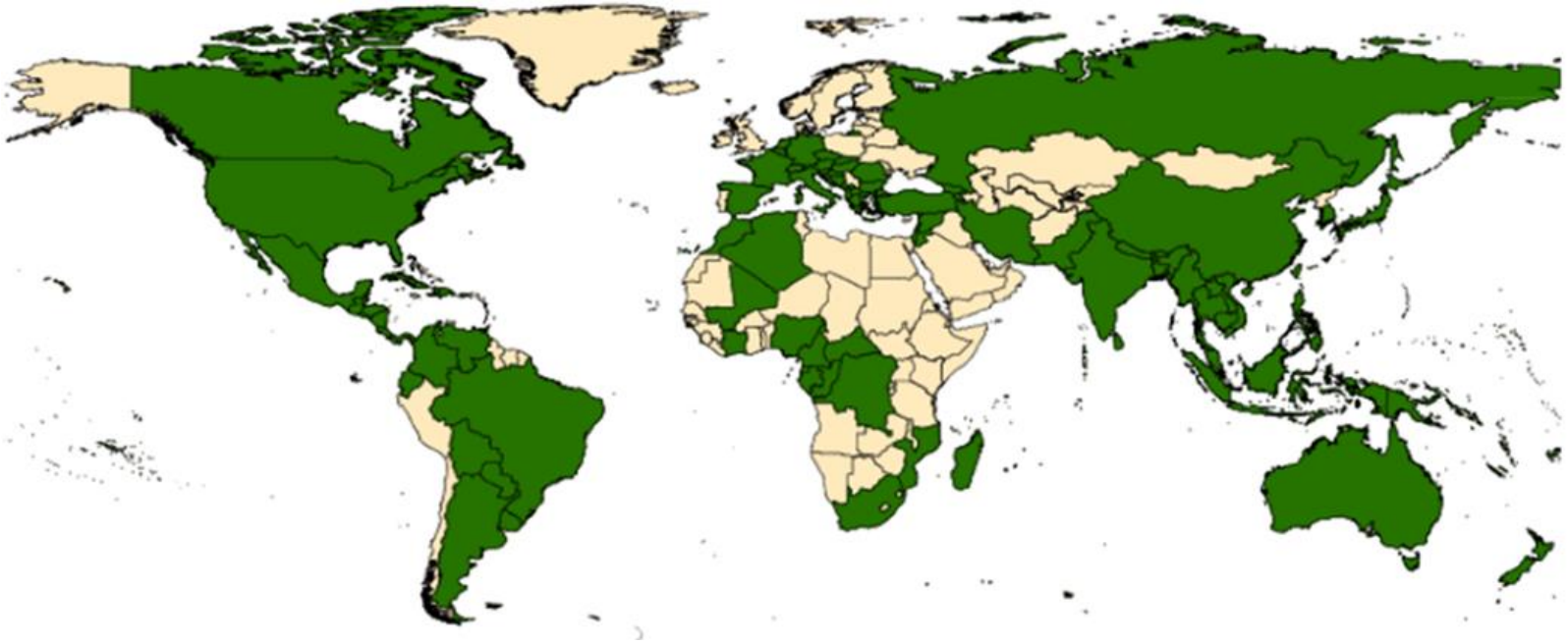
Arumowot virus (AMTV), Arkonam virus (ARKV), Chikungunya virus (CHIKV), Chandipura vesiculovirus (CHPV), Cache Valley virus (CVV), **Dengue virus** (DENV), Eastern Equine Encephalitis virus (EEEV), Itaporanga virus (ITPV), Japanese Encephalitis virus (JBEV), Kasba virus (KASV), Kunjin virus (KUNV), La Crosse virus (LACV), Semliki Forest virus (SFV), Tahyna virus (TAHV), Usutu virus (USUV), Venezuelan Equine Encephalitis virus (VEEV), Vesicular stomatitis virus, Alagoas serotype (VSAV), Western Equine Encephalitis virus (WEEV), **West Nile virus** (WNV), **Yellow Fever virus** (YFV), **Zika virus** (ZIKV, ZIKAV), Dirofilaria immitis, Dirofilaria repens, **Plasmodium lophurae, Plasmodium gallinaceum, Plasmodium fallax**.

Distribucija

Albanija – 1979 g.

prisutan na svim kontinentima

123 države uključujući Hrvatsku



Karakteristike *Aedes albopictus*

- izbor staništa:

prirodna legla - rupe u drveću, panjevi bambusa

umjetna legla - automobilske gume*, odbačene posude, nepropisno odbačen krupni otpad, neodržavani slivnici, različiti spremnici za vodu

- fotoperiodična dijapauza
- oportunističko hranjenje:

antropofilija i zoofilija (krave, koze, psi, ptice, gmazovi, vodozemci)

- egzofagija i endofagija

Karakteristike *Aedes albopictus*

- interspecijska kompeticija

Pr. kompeticija s *Aedes aegypti*

(JI SAD, centralna Afrika, Bermuda…)

superiorne ličinke

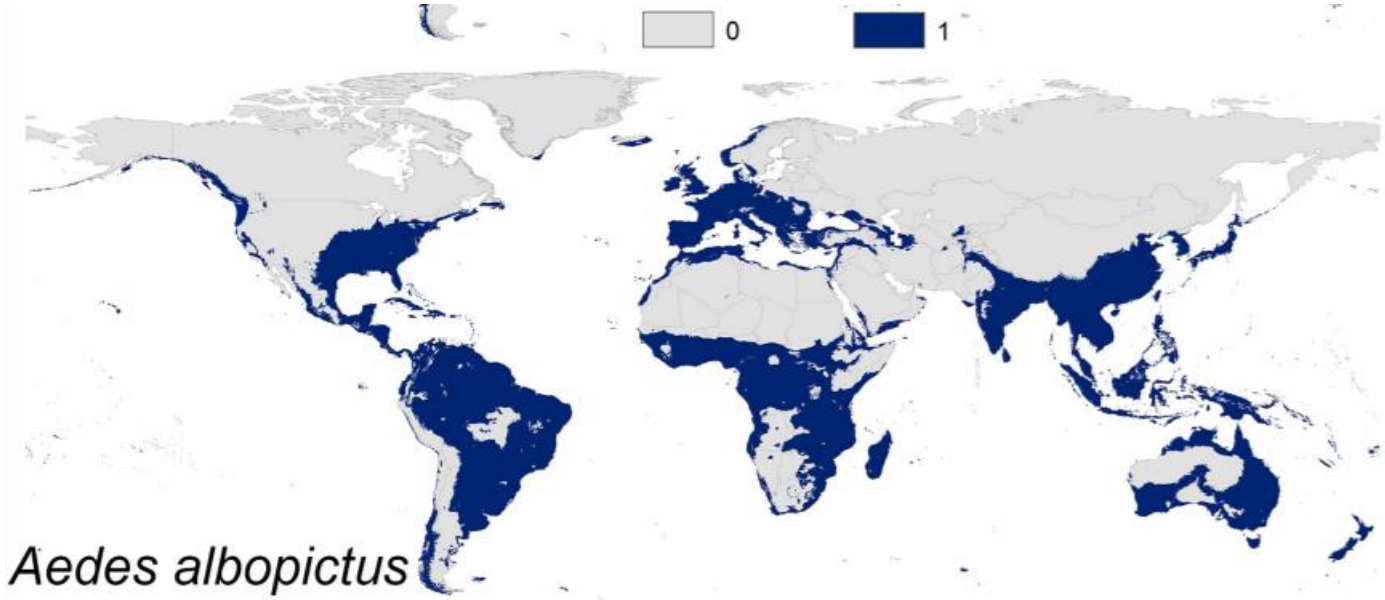
satirizacija

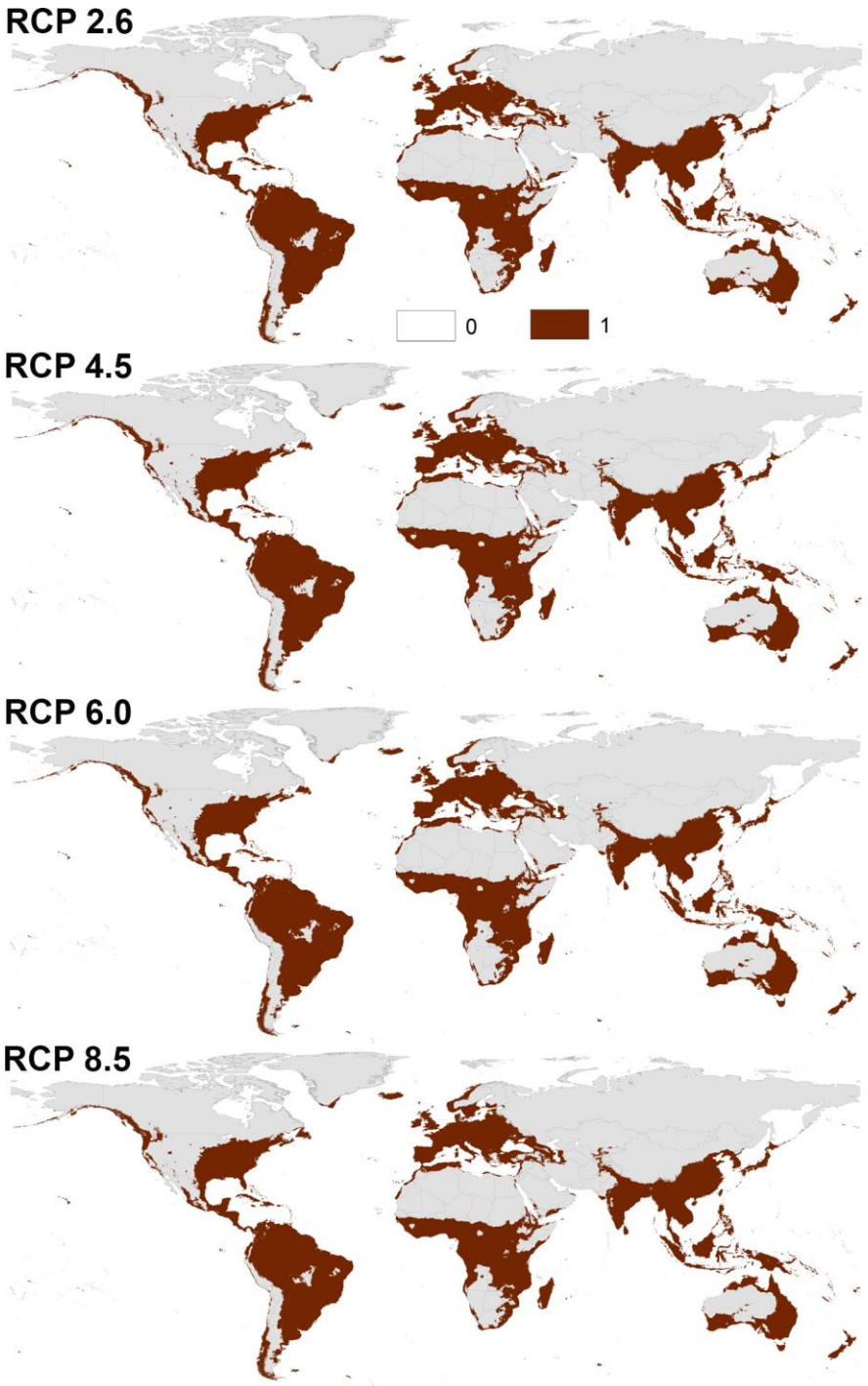
Aedes aegypti

Utjecaj klimatskih promjena na širenje

RCP 2.6 – najbolji scenarij

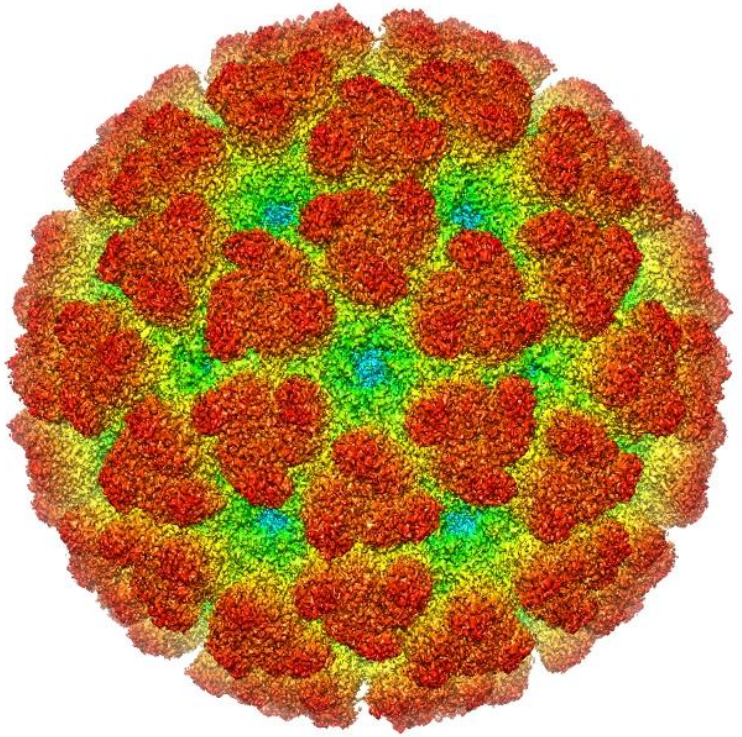
RCP 8.5 – najlošiji scenarij



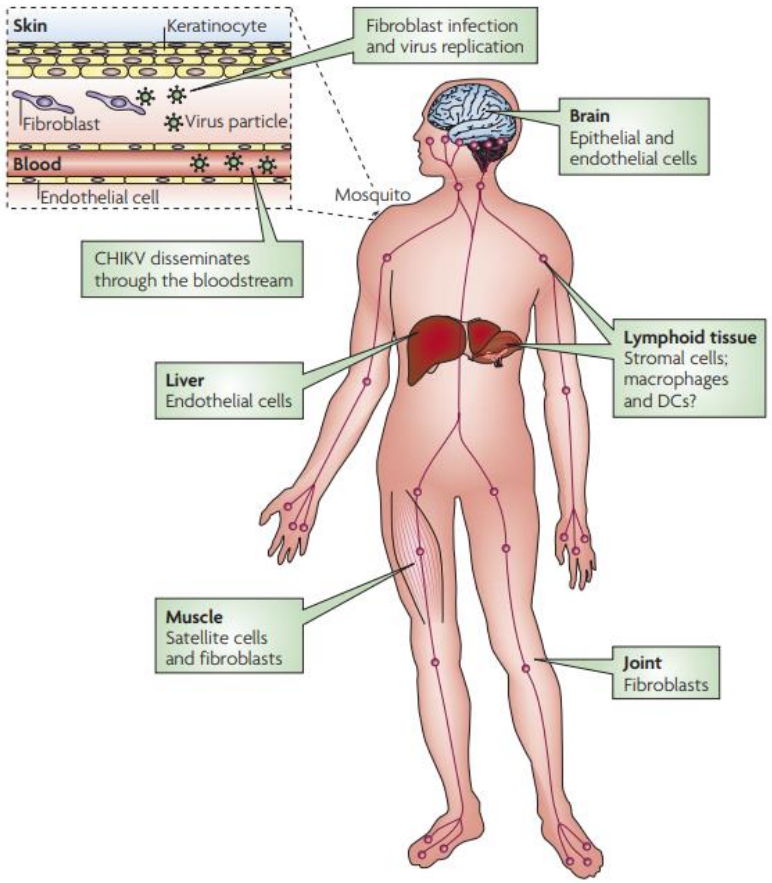


Chikungunya virus

- prvi put izoliran – Tanzania, 1952 g.
- Alfavirus, porodica: Togaviridae
- „Chikungunya” – Bantu jezik: pognuto držanje zbog čestih i iscrpljujućih bolova u zglobovima izazvanih chikungunya groznicom
- vektori: najčešće *Aedes albopictus* i *Aedes aegypti*
- domadari: ljudi, majmuni, glodavci, ptice



Chikungunya virus

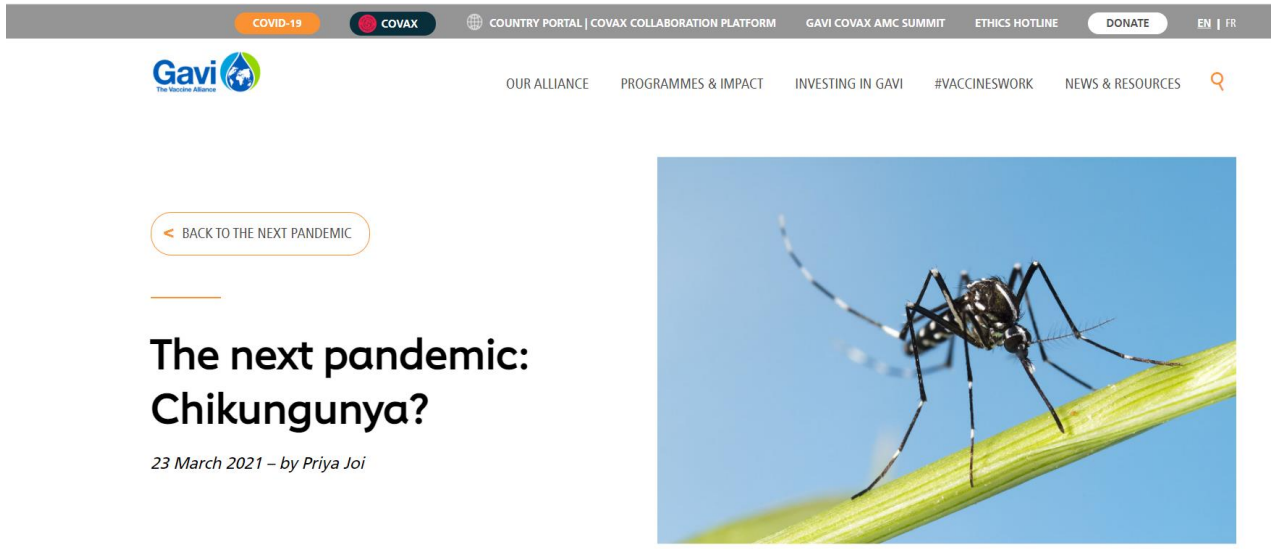


- ugriz komarca, s majke na dijete u trudnoći
- replicira se u koži, u fibroblastima
- zatim se širi krvlju u jetru, mišiće, zglobove, limfoidno tkivo (limfni čvorovi i slezena) i mozak

Chikungunya virus

- simptomi se pojavljuju unutar 4-7 dana
- simptomi: visoka temperatura, povraćanje, poliartralgija, bol u leđima, glavobolja, umor, kožne manifestacije
- poliartralgija – bol u zglobovima
- kožne manifestacije – osip, lezije kože i sluznica: hipermelanoza, hiperpigmentacija, eksfolijativni dermatitis,… pogoršavanje već postojećih dermatoza kao što je psorijaza
- otok Reunion – 16% mjesec dana
  31% 1-3 mjeseca
  53% postojani simptomi
- mortalitet – 0.1%

Chikungunya virus



- od 2005 Indija, Indonezija, Maldivi, Mianmar i Tajland preko 1,9 milijuna slučajeva
- 2016 – Kenija više od 1700 prijavljenih slučaja
- 2016 – prvi slučaj u Hrvatskoj
- Italija 2007, 2017

Ravenna 2007

pronađena velika populacija *Aedes albopictus*

200 prijavljenih slučajeva

provedba mjera suzbijanja vektora

studija seroprevalencije – 10% populacije bilo izloženo CHIKV

Anzio, Rim, Guardavalle Marina 2017

preko 300 slučajeva

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