Climate right for Asian mosquito to spread in N. Europe

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An employee spray insecticide in 2010 in La Gaude, southern France, during a mosquito eradication operation following the discovery of the insect bourne virus chikungunya in the area. The climate in northwestern Europe and the Balkans is becoming suitable for the Asian tiger mosquito, a disease-spreading invasive species, scientists said on Wednesday.

The climate in northwestern Europe and the Balkans is becoming suitable for the Asian tiger mosquito, a disease-spreading invasive species, scientists said on Wednesday.

The warning comes from scientists at the University of Liverpool, northwestern England, who say the two regions have been having progressively milder winters and warmer summers.

These temperate conditions favour the mosquito, which gained a

foothold in Albania in 1979 and is now present in more than 15 countries on Europe's southern rim.

"Over the last two decades, climate conditions have become more suitable over central northwestern Europe -- Benelux, western Germany -- and the Balkans," they said.

At the same time, drier conditions in southern Spain have made that region less welcoming for the insect, they said.

The Asian tiger mosquito (Aedes albopictus), a native of tropical and subtropical areas of Southeast Asia, can transmit viruses that cause West Nile fever, yellow fever, dengue, St. Louis and Japanese encephalitis and other diseases.

In 2005-6, it caused an epidemic of chikungunya, a disease that attacks the joints, on the French Indian Ocean island of Reunion.

A year later, it unleashed an outbreak of chikungyuna in the Italian province of Ravenna. In 2010, it was fingered as a transmitter of dengue virus in France and Croatia.

As of last December, the mosquito was present in more than 15 countries, from southern Spain to parts of Greece and Turkey, according to the European Centre for Disease Prevention and Control (ECDC).

Reporting in Britain's Journal of the Royal Society Interface, the Liverpool team looked at European weather records for 1950-2009 and ran a widely-used computer model to simulate weather trends for 2030-2050.

"Similar trends are likely in the future with an increased risk simulated over northern Europe and slightly decreased risk over southern Europe,"

says the study.

"These distribution shifts are related to wetter and warmer conditions favouring the overwintering of A. albopictus in the north, and drier and warmer summers that might limit its southward expansion."

The paper points out that weather alone does not mean that the species will automatically spread there.

It also notes that the study did not consider vegetation or soil types which also determine whether the mosquito would be able to breed there. In addition, cold snaps or hot, dry spell also help limit mosquito survival, and these too were not included in the investigation.

In the mid-1960s, the Asian tiger mosquito was limited to some parts of Asia, India and a handful of Pacific islands.

It has since spread to North and South America, the Caribbean, Africa and the Middle East, as well as Europe, mainly by hitchhiking a ride in exported materials.