

Know Your Mosquitoes

Pictures
Behaviors
Geography
Diseases they can transmit

A practical introduction to major
mosquito vectors



Disease transmission requires the right chain

1

Correct mosquito

Only certain species can transmit a given pathogen.

2

Infected blood meal

The female must acquire the pathogen from an infected host.

3

Development inside

The pathogen must survive and reach the mosquito's saliva.

4

Later bite

Transmission can occur during a later blood meal.

Key idea: most mosquitoes are not infected, and not every species can transmit every disease.

Three genera drive many mosquito-borne diseases

AEDES



LOOK: Often black with white markings

BITING: Often bites by day

BREEDS: Small containers

KNOWN FOR: Dengue • Zika •
chikungunya • yellow fever

ANOPHELES



LOOK: Spotted wings; angled resting posture

BITING: Often dusk to dawn

BREEDS: Varied fresh-water habitats

KNOWN FOR: Malaria

CULEX



LOOK: Usually plain brown

BITING: Often dusk to dawn

BREEDS: Standing water; some polluted sites

KNOWN FOR: West Nile • St. Louis
encephalitis • Japanese encephalitis

Aedes aegypti: the urban yellow fever mosquito

HOW TO RECOGNIZE IT

Dark body, white-banded legs, and pale lyre-shaped markings on the thorax.

TYPICAL BEHAVIOR

Aggressive daytime biter; closely associated with people and container water.

GLOBAL

Tropical and subtropical Africa, the Americas, Asia and Pacific regions

UNITED STATES

Best established in warmer southern and southwestern areas; potential range varies by climate



Simplified illustration — confirm specimens with a regional identification key.

KNOWN FOR: Primary vector of dengue, Zika and chikungunya; also urban yellow fever.

Aedes albopictus: the Asian tiger mosquito

HOW TO RECOGNIZE IT

Black-and-white legs with one straight white stripe running down the top of the thorax.

TYPICAL BEHAVIOR

Day-biting; uses tires, buckets, saucers and other small containers.

GLOBAL

Native to Asia; now established across many tropical, subtropical and temperate regions

UNITED STATES

Broad potential range across much of the East, Southeast and parts of the Midwest and West



Simplified illustration — confirm specimens with a regional identification key.

KNOWN FOR: Can transmit dengue, chikungunya and Zika; generally a less efficient human-to-human vector than *Ae. aegypti*.

Anopheles gambiae group: Africa's malaria vectors

HOW TO RECOGNIZE IT

Spotted wings; adults often rest with the abdomen angled upward from the surface.

TYPICAL BEHAVIOR

Many important species bite from dusk through dawn.

CORE RANGE

Sub-Saharan Africa; exact range differs among members of the species complex

ANOPHELES GENUS

Anopheles mosquitoes occur worldwide except Antarctica



Simplified illustration — confirm specimens with a regional identification key.

KNOWN FOR: Known primarily for transmitting human malaria parasites, especially *Plasmodium falciparum* in Africa.

Anopheles quadrimaculatus: U.S. malaria vector

HOW TO RECOGNIZE IT

Dark brown; four dark wing spots; adults rest with the abdomen angled upward.

TYPICAL BEHAVIOR

Females bite mainly at dusk and night; larvae favor vegetated permanent freshwater.

EASTERN U.S.

Widespread across much of the eastern United States, especially the Southeast

HABITAT

Ponds, lakes, marshes and slow water with aquatic vegetation



Simplified illustration — confirm specimens with a regional identification key.

KNOWN FOR: Historically important U.S. malaria vector; can transmit malaria parasites when locally infected.

Culex pipiens complex: the house mosquitoes

HOW TO RECOGNIZE IT

Mostly plain brown; subtle pale bands on the abdomen.
Species-level ID often requires expertise.

TYPICAL BEHAVIOR

Usually most active from dusk through dawn; larvae develop in many kinds of standing water.

CULEX PIPIENS

Common across temperate regions, including much of northern North America

CULEX QUINQUEFASCIATUS

More common in tropical, subtropical and southern U.S. regions



Simplified illustration — confirm specimens with a regional identification key.

KNOWN FOR: Major vectors of West Nile and St. Louis encephalitis viruses; some Culex also transmit lymphatic filariasis.

Culex tarsalis: an important western U.S. vector

HOW TO RECOGNIZE IT

Brown mosquito with banded legs and a noticeable pale band around the proboscis.

TYPICAL BEHAVIOR

Often active after sunset; feeds on birds and mammals, helping bridge viruses to people and horses.

NORTH AMERICA

Most important in western and central regions

HABITAT

Rural and irrigated landscapes, wetlands and other standing-water habitats



Simplified illustration — confirm specimens with a regional identification key.

KNOWN FOR: Important vector of West Nile virus and western equine encephalitis virus.

Aedes triseriatus: the eastern tree-hole mosquito

HOW TO RECOGNIZE IT

Dark mosquito with pale lateral markings; identification is less obvious than the striped invasive Aedes.

TYPICAL BEHAVIOR

Breeds in tree holes and water-filled artificial containers; often associated with wooded settings.

UNITED STATES

Wooded regions east of the Rocky Mountains

DISEASE PATTERN

La Crosse encephalitis occurs most often in the upper Midwest and parts of Appalachia



Simplified illustration — confirm specimens with a regional identification key.

KNOWN FOR: Primary vector of La Crosse virus, an important cause of mosquito-borne encephalitis in children.

Quick reference: mosquito, geography and disease

Mosquito	Typical geography	Most recognized disease links
Aedes aegypti	Tropics/subtropics; warmer U.S.	Dengue, Zika, chikungunya, yellow fever
Aedes albopictus	Broad temperate + tropical range	Dengue, chikungunya, Zika
An. gambiae group + An. quadrimaculatus	Africa + eastern U.S.	Malaria
Culex pipiens complex	Temperate and tropical regions	West Nile, St. Louis encephalitis
Culex tarsalis	Western/central North America	West Nile, western equine encephalitis
Aedes triseriatus	Eastern North America	La Crosse encephalitis

Remember: vector competence, local infection, weather and human exposure all affect actual risk.

Identify the pattern. Reduce the habitat. Prevent the bite.

LOOK Notice markings, resting posture and biting time.

LOCATE Check the species' likely region and breeding habitat.

LIMIT Empty standing water; cover containers; maintain screens.

PROTECT Use Summit[®] Mosquito Dunks[®], Mosquito Chunks[®] and Mosquito Bits[®] to treat any bodies of standing water to kill mosquitos before they are old enough to bite![®]

If illness follows mosquito exposure, contact a healthcare professional and share travel history.