

PUBLIC HEALTH SIGNIFICANCE OF GROUPS INCLUDED IN THE KEY

COMMON NAME	PUBLIC HEALTH SIGNIFICANCE
Ant	bite, sting; infest stored food; damage wood.
Bat	associated with rabies, histoplasmosis and many other diseases.
Bed Bug	cause dermatitis; not known to transmit disease.
Bee, Hornet, etc.	bite and sting; infest stored food; damage wood.
Beetle	infest stored food; infest human intestine: cause dermatitis.
Bird	associated with histoplasmosis, ornithosis and many other diseases.
Book Louse, Psocid	infest stored food.
Caterpillar	sting; infest intestinal tract.
Centipede	venomous bite; infest nasal, intestinal, and urinary tracts.
Chewing Louse	infest domestic birds and mammals.
Cockroach	transmit enteric diseases.
Collembola	infest stored food; used as indicator organisms for pesticide studies.
Copepod	involved in transmission of broad fish tapeworm and guinea worm.
Daddy Long-leg Spider ..	infest houses; harmless.
Earwig	household pests.
Flea	cause dermatitis; transmit plague, murine typhus, tapeworms.
Fly	some bite; larvae infest human flesh; transmit typhoid, paratyphoid, cholera, bacillary dysentery, infantile diarrhea, amebic dysentery, giardiasis, helminths, trachoma, conjunctivitis, yaws, anthrax, tularemia, African sleeping sickness, leishmaniasis, onchocerciasis, loiasis, bartonellosis, sandfly fever.
Ked or Louse Fly	occasionally bite man.
Kissing Bug	transmit Chagas disease.
Lagomorph	transmit tularemia and many other diseases.
Lobster, Crab, etc.	involved in transmission of oriental lung fluke.
Millipede	exude vesicating venom; infest digestive and urinary tract; intermediate host of tapeworms.
Mite	cause dermatitis; infest human intestine; transmit scrub typhus, rickettsialpox, epidemic hemorrhagic fever.
Mosquito	transmit malaria, encephalitis, yellow fever, dengue, filariasis.
Moth or Butterfly	infest stored food; infest human intestine; some have stinging hairs.
Pseudoscorpion	infest houses; harmless.
Rodent	transmit leptospirosis, lymphocytic choriomeningitis, etc.
Scorpion	sting.
Sea Spider	appearance causes fear; harmless.
Silverfish, Firebrat	infest stored food; transmit enteric diseases.
Snake	venomous bite; secondary infection of bites.
Sowbug, Pillbug	household pests; harmless.
Spider	venomous bite.
Sucking Louse	cause dermatitis; transmit epidemic typhus, trench fever, relapsing fever.
Sun Spider	non-venomous bite.
Termite	destroy wood; housing deterioration.
Thrips	bite man occasionally.
Tick	cause dermatitis, tick paralysis; transmit spotted fever, relapsing fever, tularemia, Colorado tick fever, Russian spring-summer encephalitis.
Whip Scorpion	appearance causes fear; harmless.

INTRODUCTION

Public health biologists are often responsible for teaching animal identification to personnel (sanitarians, engineers, physicians, veterinarians, etc.) without special training in taxonomy. One of the most successful devices for such training has been the pictorial key. The first U.S. Public Health Service pictorial key was devised by Stanley B. Freeborn and Eugene J. Gerberg (1943) to guide personnel in the identification of anopheline mosquito larvae during our national malaria control program.

After the Centers for Disease Control and Prevention (CDC) was founded (1946) additional keys were developed. At present the CDC utilizes more than 75 such keys in its regular training program. These are the major items incorporated into this booklet. Apropos morphological diagrams are also included.

Precise identification of disease vectors is essential to their efficient control. In using the following keys it should be remembered that only a few of them include all species in a group, and that determinations made using them are only tentative.

The pictorial keys are typical of identification keys found in reference works and scientific papers except that they are arranged as diagrams and are illustrated. After making the first choice offered at the top of each page, follow the black lines or indicated numbers to secondary choices until the correct identification has been made. Note that, in some cases, the identification can be made in the first choice.

Note: The differing formats and typography in this publication were deliberately selected to:

- (1) Provide a broad spectrum of taxonomic experience;
- (2) Avoid the stultifying effect of monotonous repetition.