

Biting Nest Mites

Mites are closely related to ticks, and less so spiders. Newly hatched mites have six legs all other stages have eight legs. The so-called nest mites live in animal nests, particularly those of birds and rodents where they periodically feed on the blood of the nest maker and its off-spring.

A number of parasitic mites will feed on humans, but only scabies mites live in the skin of humans. In the case of nest mites, individual mites will bite humans, but they do not stay on or in the skin and they cannot survive and reproduce on human blood. Most nest mites can survive for months without feeding, as they wait for the host to return. There are two basic types of nest mites commonly encountered by humans, rodent and bird mites.

Tropical rat mite, *Ornithonyssus bacoti*, is a nest parasite of rats in the urban setting, and wild rodents. These mites will travel up to 100 feet to find a host if the normal host is unavailable or gone from their nest for a long period. This mite is found on nearly all continents. These mites feed and leave to return to the nest. They are not known to transmit any pathogens to humans.

Northern fowl mite, *Ornithonyssus sylviarum* and **red mite**, *Dermanyssus gallinae*, are blood feeding ectoparasites of birds. Fowl mites are commonly found on the vent, tail and breast of chickens and turkeys. Red mite only feeds at night and does not remain on the host. During the day they can be found in cracks, seams and crevices near where their hosts sleep. Although fowl mites prefer to feed on birds they will bite humans.

These mites can cause economic losses through lowered rates of egg laying and anemia and even death of the birds.

A number of mite species are ectoparasites of birds that commonly nest

in homes and other buildings. The dominant species of blood-feeding mite on pigeons is red mite. *Ornithonyssus bursa* is parasitic on barn swallows. Both of these mite species will bite humans when their normal host is gone.

All of these mites are opportunist blood-feeders on humans when their hosts are gone for any length of time. Control measures require finding the normal host nests, removing them and treating the vicinity of the nest. Bird nests will be located under eaves, on ledges or in entry ways. Rodent nests, particularly those made by rats, are generally located in attics, crawl spaces and even wall voids. Nest removal must be followed by preventing the host from returning to nest in the same place. Bird nests should always be removed from structures once the chicks have fledged and preventative measures taken to prevent nests from being built again. Even if all of the mites aren't removed they will eventually starve and no longer be a problem.

None of these mites transmit disease causing pathogens. However, it is possible to develop severe allergic reactions to their bites.



Blood fed, rat mite. Photo by Suzanne Guldemann (<https://messengermountainnews.com/news/rat-mites-well-now-you-know/>)



Unfed tropical rat mite. Photo courtesy of the San Mateo Mosquito & Vector Control District.