



Information

Bohart Museum of Entomology

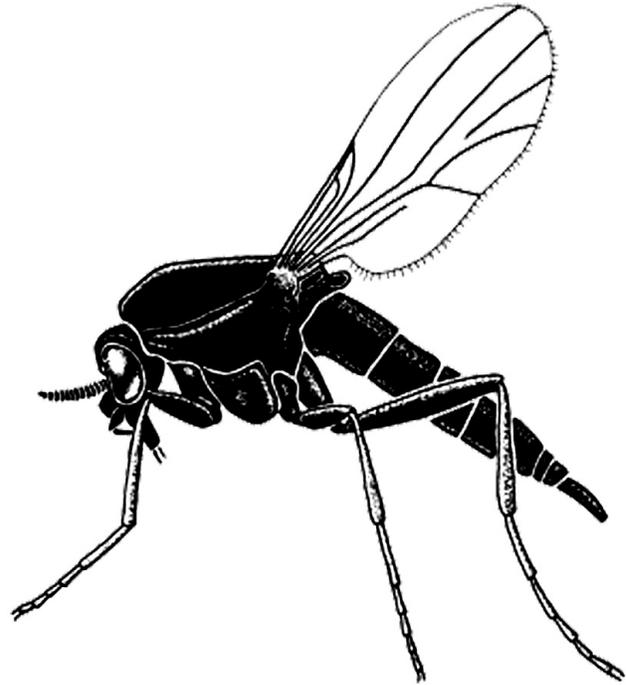
No. 034

No-See-Ums

No-see-ums, or Black Valley Gnats (*Leptoconops torrens*), are small biting flies in the family Ceratopogonidae. These flies are common in parts of the Central Valley of California, particularly in areas with alkaline clay soils. The adults are black and tiny, about 1/16 inch long, and are small enough to pass through window screens.

Adults emerge in the late spring, usually in mid-May, and remain a pest for several weeks depending on the weather. Larvae are orange-colored and live in damp soils. The complete life cycle takes two years from egg to adult. Adults emerge when the soil begins to dry and cracks develop. In areas with this soil type lawns are common sources of these tiny flies. Larvae can diapause (a kind of hibernation) for 3 years or longer depending on environmental conditions.

These flies are ferocious biters that feed on blood. As with mosquitoes, only the females bite. Males either do not feed or only feed on nectar or honeydew secreted by aphids and scale insects. No-see-ums will bite humans, domestic and wild animals and birds. They have short mouthparts and feed by injecting saliva into the skin, which causes blood to pool just under the skin surface. The bite is generally painless, but usually results in a small flat red spot that within 12 hours becomes excruciatingly itchy. In sensitive individuals a



single bite can result in a swollen itchy spot 1-2 inches in diameter. Scratching No-see-um bites can double the length of time they require to disappear and can lead to infected sores.

Fortunately, these flies are not known to transmit any diseases of humans, pets or livestock, but a closely related fly transmits a virus that causes blue-tongue disease of sheep. Even though No-see-ums do not transmit any diseases their bites are sufficiently annoying to keep people indoors in some areas in California. They are small enough to crawl under loose clothing without being noticed. Standard mosquito repellents do not appear to be particularly effective on these flies.