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Tabanidae: Horse flies and deer flies.

Horse flies (Tabanus, Hybomitra) and deer flies (Chrysops)

(42 species recorded from Kansas)

Description: horse flies 5/16 to 1 inch long, deer flies ¼ to 3/8 inch; horse fly species range from solid black to patterns of gray, brown, black, greenish, and yellow with eyes horizontally striped with iridescent greens, blues, and violet (eyes of a few species are solid green); deer flies are brown to black with yellow to pale brown markings and large spots on wings, eyes green with red spots.

Domestic animals afffected: cattle, horses; to a lesser extent, swine, sheep, goats, and dogs; humans may be bitten by most species.

Damage caused: pain from biting; blood loss may be extensive during outbreaks of large species; reduced milk production, feeding efficiency, and rate of gain; transmission of anaplasmosis, vesicular stomatitis, equine infectious anemia (swamp fever), tularemia, anthrax, trypanosomiasis.

Development: complete metamorphosis: egg, larval stages, pupa, adult.

Generational time: typically a year; two years for some larger species.

Oviposition site: on vegetation overhanging water or mud; a few species, e.g., *T. abactor* and *T. sulcifrons*, oviposit on tree limbs above moderately moist soil.

Larval habitat, feeding: semiaquatic in mud, or (some species) in moist earth of grasslands or forests; horse fly larvae are predaceous as are some deer fly larvae; deer fly larvae of most species are thought to feed on decaying plant matter.

Adult habitat, feeding: females pierce skin of animals and feed on blood; males feed on nectar, honeydew from aphids, and on sugar from extrafloral nectaries of plants; wooded areas or dense grass, sedge, or cattails preferred as resting sites.

Method of dispersal or infestation: adults are strong fliers—especially the larger species that may attack animals several miles from their source; they'll find animals except in darkened buildings.

Seasonality: mostly late May through September with a succession of species prevalent for a few weeks each; in Kansas, the most damaging species are active in July and early August.

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