

## Superfamily CULICOIDEA

### 19. Family DIXIDAE

By T. Michael Peters

**A**dult meniscus midges are small and frail. They do not feed and remain near streams, ponds, or bogs in which immatures live. Adults rest on emergent or overhanging vegetation near the water's edge. Males form small leks in these same locations.

Eggs are deposited in a mass at the water's edge. Larvae are filter feeders and lie in the meniscus or crawl out of the water on rocks, moss, or emergent vegetation. In crawling, larvae maintain an inverted U-shape and alternate pushing the anterior side forward with their prolegs [on abdominal segments 1, and (usually) 2], then the posterior side by using the ambulatory combs on abdominal segments 5-7. In swimming, the anterior part of the larval body is whipped from side to side, dragging the posterior section for-

ward. A float structure surrounding the posterior spiracles is reminiscent of anopheline larvae. Pupae can swim, but usually are encountered above the water's surface, glued to a piece of grass or a rock.

Meniscus midges have been collected on all continents except Antarctica. In the areas covered in this catalog, 4 genera and 16 species are known. Worldwide, 7 genera and about 175 species are recognized. The generic classification needs to be revised, and few larvae have been associated with their adult forms. This lack of larval association is unfortunate because larvae are collected more commonly than adults.

*Refs.*: Peters & Cook (1966, Nearctic spp.), Peters (1981, Nearctic spp.).

#### Genus DIXELLA Dyar & Shannon

- DIXELLA** Dyar & Shannon, 1924: 200. Type species: *Dixella lirio* Dyar & Shannon, 1924, mon.  
**PARADIXA** Tonnoir, 1924b: 223 (*Dixa* subg.). Type species: *Dixa neozelandica* Tonnoir, 1924, des. Edwards, 1932d: 9.  
**fuscinervis** Tonnoir, 1924b: 229 (*Dixa*). NZ (NZ).  
**harrisi** Tonnoir, 1925c: 311 (*Dixa*). NZ (NZ).  
**humeralis** Tonnoir, 1923c: 65 (*Dixa*). Australia (NSW).  
**neozelandica** Tonnoir, 1924b: 229 (*Dixa*). NZ (NZ).  
**nicholsoni** Tonnoir, 1923c: 64 (*Dixa*). Australia (NSW).  
**tasmaniensis** Tonnoir, 1923c: 63 (*Dixa*). Australia (Tas).  
**tonnoiri** Belkin, 1968: 44 (*Paradixa*). NZ (NZ). **N. comb.**  
**unipunctata** Tonnoir, 1923c: 66 (*Dixa*). Australia (Tas).

#### Genus DIXINA Enderlein

- DIXINA** Enderlein, 1936f: 30. Type species: *Dixa obscura* Loew, 1849, orig. des.  
**solomonis** Belkin, 1962: 111. Solomon Is.

#### Genus NEODIXA Tonnoir

- DIXELLA** Tonnoir, 1924b: 230. Type species: *Dixella minuta* Tonnoir, 1924, mon. [Preocc. Dyar & Shannon, 1924.]

**NEODIXA** Tonnoir, 1925c: 311 (n. n. for *Dixella*).

**minuta** Tonnoir, 1924b: 230 (*Dixella*). NZ (NZ).

**Genus NOTHODIXA Edwards**

**NOTHODIXA** Edwards, 1930b: 101 (*Dixa* subg.). Type species: *Dixa campbelli* Alexander, 1922, orig. des.

**campbelli** Alexander, 1922a: 20 (*Dixa*). NZ (NZ).

**flavicollis** Tonnoir, 1923c: 60 (*Dixa*). Australia (Vic).

**geniculata** Tonnoir, 1923c: 61 (*Dixa*). Australia (Tas).

**otagensis** Alexander, 1922h: 147 (*Dixa*). NZ (NZ).

**philpotti** Tonnoir, 1924b: 227 (*Dixa*). NZ (NZ).

**septentrionalis** Tonnoir, 1924b: 226 (*Dixa*). NZ (NZ).