

Dianthidium of the tallgrass prairie region and eastern North America
M. Arduser
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Males

1. Hind coxae each with a short, sharp spine or triangular projection; T5 lateral margins not produced as rounded angles; propodeal triangle smooth (impunctate) at least on lower half; inter-antennal area unmodified, without a pair of raised “bumps” adjacent to antennal sockets.....2

Hind coxae simple, without short, sharp triangular projections; T5 lateral margins produced as rounded angles; propodeal triangle closely punctate throughout; inter-antennal area with a pair of raised, flattened “bumps” adjacent to the antennal sockets; southern TGP, rare**texanum** (Cresson)

2. Forecoxae each with a short, spinelike, hispid process between the foretrochanters; penis valves glabrous; widespread species.....**curvatum** and **simile**
[Note: *D. simile* (Cresson) is likely just a northeastern variant of the widespread and variable *D. curvatum* (Smith); these two “species” have traditionally been separated by the reduced maculations on the scutum and face in *simile*, not on any structural features, and geography, *simile* being in the NE US, *curvatum* and its subspecies being everywhere else.]

Forecoxae simple, without short, spinelike, hispid processes between the foretrochanters; penis valves with hairs (sometimes sparse and short), on lateral margins and/or apically.....3

3. Omaulus incomplete; pleura black, without yellow maculae; T7 variable; S3 hairs medially formed into a discrete “tuft” separate from hairs elsewhere on S3.....4

Omaulus complete; pleura often with one (or more) small yellow maculae, these often irregular in shape; T7 essentially truncate, medial process of T7 hardly defined at all; S3 hairs medially not formed into a discrete “tuft” separate from hairs elsewhere on S3; northern TGP.....**ulkei**
[*D. pudicum* (northern TGP) will come to this couplet, but differs from *ulkei* in the distinct, almost spine-like medial process of T7, absent in *ulkei*.]

4. T7 essentially truncate, medial process poorly defined; propodeum with post-spiracular area shiny, impunctate; S3 medially with dense tuft of hairs, hairs lateral to tuft long and dense but not so dense as medial tuft; S6 apico-medially with V- or U-shaped notch; penis valves apically narrowed and pointed, strongly fringed laterally with fine hairs; southern TGP.....**subrufulum**

T7 with distinct, well-defined medial process; propodeum with post-spiracular area shiny but punctate; S3 medially with a discrete, very dense tuft of hairs, hairs lateral to tuft sparse; S6 apico-medially without a V- or U-shaped notch; penis valves apically obliquely truncate, hairs sparse; central and southern TGP.....**concinnum**

Dianthidium of the tallgrass prairie region and eastern North America

M. Arduser
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Females

1. Hind coxae each with a short, sharp triangular projection; propodeal triangle smooth (impunctate) at least on lower half; occipital carina present laterally; inter-antennal area unmodified; clypeal margin without small teeth; mandible usually with a preapical or median tooth2

Hind coxae without short, sharp triangular projections; propodeal triangle closely punctate throughout; occipital carina absent laterally; inter-antennal area with a pair of flattened “bumps” adjacent to the antennal sockets; clypeal margin crenulate-serrate; mandible without preapical or median tooth, completely entire; southern TGP, rare**texanum**

2. Narrow area immediately behind the propodeal post-spiracular carina impunctate, glabrous, shiny; clypeus yellow at least in part; omaulus variable.....3
Area just behind propodeal post-spiracular carina punctate, hairy, not shiny; clypeus all black; omaulus incomplete; central and southern TGP.....**concinnum**

3. Punctures of scutum very dense and contiguous, without shiny interspaces, and smaller than the punctures on scutellum, which do have shiny (though very narrow) interspaces; omaulus complete; mesopleura with large yellow spot; northern TGP**ulkei**

D. pudicum, which occurs in the northern TGP, will come to this couplet, and superficially resembles *ulkei*, but *pudicum* has the preapical tooth of the mandible absent or very reduced, while the tooth is conspicuously present in *ulkei*; also the punctures of the scutum are not contiguous in *pudicum*, and have narrow shiny interspaces, unlike *ulkei*.

Punctures of scutum very close but with very narrow shiny interspaces, and similar in size to the punctures on scutellum; omaulus incomplete below; mesopleura all black, without yellow spot (rarely a small spot present).....4

4. Forecoxae each with a very short, blunt, nipple-like hispid process between the foretrochanters; mandible with preapical tooth, distance between apical and preapical teeth of mandible equals more than half the distance between preapical and basal teeth; widespread species.... **curvatum** and **simile**

[Note: *D. simile* is likely just a northeastern variant of the widespread and variable *D. curvatum*; these two species have traditionally been separated by the reduced maculations on the scutum and face in *simile*, not on any structural features (of which there do not appear to be any in either sex), and geography, *simile* being in the NE US, *curvatum* and its subspecies being everywhere else.]

Forecoxae without small processes between foretrochanters; mandible with preapical tooth slightly closer to apical tooth than in *curvatum/simile*, i.e., distance between apices of apical and preapical teeth of mandible equals less than half the distance between preapical and basal teeth, mandible occasionally with preapical tooth very reduced to nearly absent; southern TGP.....**subrifulum** Timberlake