

On the Genus *Anaxipha* (Orthoptera ; Gryllidae).

By JAMES A. G. REHN and MORGAN HEBARD, Philadelphia, Pa.

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An examination of material of the genus *Anaxipha* from the United States shows that two species occur in North America, north of the Rio Grande. It is also true that Scudder's *Cyrtoxipha delicatula* is a synonym of the less well known of the two, *Anaxipha pulicaria* (Burmeister), being based on the long-winged form of this species. We have before us Scudder's type of *delicatula* and other long-winged individuals referable to both species of the genus. The perforation of both faces of the cephalic tibiae has been considered of great importance in the separation of *Anaxipha* and *Cyrtoxipha*, while the macropterous condition found in forms of *Cyrtoxipha* had not been reported in the other genus. The type of *delicatula* has the tibiae doubly perforate and the wings are decidedly caudate, but a peculiar facies to the head and pronotum seen in forms of the genus *Cyrtoxipha* is not apparent in the specimen.

We have been able to bring together for examination a considerable number of specimens of both forms of the genus, including a number of long-winged individuals, and we find that while the majority of the brachypterous individuals have the cephalic tibiae uniperforate, two short-winged specimens of *exigua* have the same portion strongly perforate on both faces,

being, in this respect, exactly like the macropterous ones. All of those in the latter condition have the tibiae with the perforations on both faces. In consequence it is apparent that the presence or absence of the perforation of the cephalic face of the cephalic tibiae is variable in individuals which are clearly referable to the same species, hence of neither generic or specific importance in this connection.*

The two species of *Anaxipha* found within our limits are closely related and from the material in hand we find the following characters by which the two can be separated:

A. Ovipositor of female longer, one-half as long as the caudal femora; pronotum less decidedly transverse; caudal femora more elongate, of male longer than tegmina; tympanum of male tegmina with the length little greater than the width.....**exigua**†

AA. Ovipositor of female shorter, not one-half as long as the caudal femora; pronotum very decidedly transverse; caudal femora shorter, of male shorter than the tegmina; tympanum of male with the length at least one and one-half times the width...**pulicaria**‡

In addition to these features, *pulicaria* is always uniformly paler and less maculate, the external face of the caudal femora always lacking the medio-longitudinal line which is almost invariably found in *exigua*, while the generally pronounced facial markings of *exigua* are almost never indicated in *pulicaria*.

Females of *pulicaria* are at first glance liable to be confused with that sex of *Falcicula hebardei* Rehn, but the much more inflated and flea-like caudal femora and slenderer ovipositor of the latter are excellent characters to separate the two. The males, however, are very easily separated by the absence of a tympanum on the tegmina in *Falcicula*.

* The presence or absence of a tympanum on the cephalic face of the cephalic tibiae has been shown by Saussure (Melang. Orthopt. II, pp. 313, 366) to be variable in two genera of *Gryllinae*—*Gryllus* and *Grylloides*.

† *Acheta exigua* Say, Jour. Acad. Nat. Sci., Phila., IV. p. 309, 1825. ["Missouri, near Konza Indian Village," which from the original charts of the expedition is found to be about eighty miles west of Kansas City, on the Kansas River, in Kansas.]

‡ *Gryllus pulicarius* Burmeister, Handb. der Entom., II, abth. II, pt. I, p. 732, 1838. [Jamaica.] For the facts in regard to the use of this name see the author's remarks, Proc. Acad. Nat. Sci., Phila., 1912, p. 274.