

**Xenosphex xerophila, an Apparently New Genus
and Species of Wasp from Southern California
(Hymenoptera, Sphecidae,
Nyssoninae, Gorytini)**

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This is a small solitary wasp of which there appear to be but two specimens known. Nothing is known of its habits apart from the fact that the female, being provided with a fore tarsal rake, is a digger in the ground.

Xenosphex Williams, new genus.

MALE, holotype: Head somewhat wider than thorax, front concave, vertex convex, occipital carina not attaining gular-genal suture; eyes converging toward clypeus slightly emarginate; antennae with 13 segments, basally removed from clypeus by about the diameter of a socket; labrum small, slightly exerted; mandibles notched beneath, bidentate, the upper tooth the shorter; no malar space; maxillary palpi with 6, labial palpi with 4 segments; ocelli arranged in a low triangle, round; anterior to the posterior ocelli there is a low oblique ridge and groove extending to the compound eyes. Pronotum moderately long; scutum narrowly margined laterally, no mesonotal lamina; notauli subobsolete, sternaui short disc of scutellum subquadrate, discrete; no epinenium; a short sharp ridge behind pronotal lobes; mesosternum notched posteriorly. Propodeum rounded, tapering, the disc somewhat depressed. Legs stout, moderately spinose; coxae 1 and 3 large, and in each pair not quite touching, posterior coxae gibbous

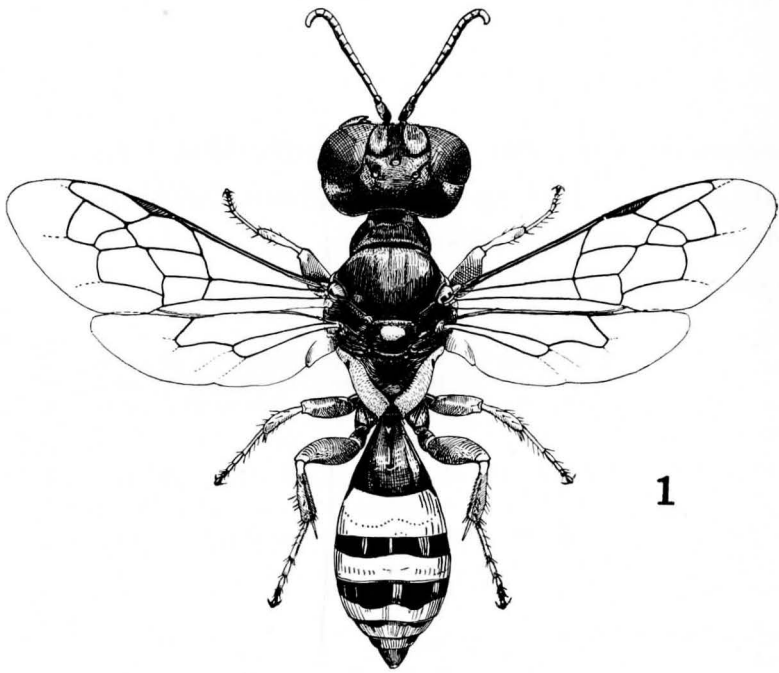


Figure 1. *Xenosphex xerophila*. Male. Length 6 mm.

at base anteriorly, intermediate coxae grooved outwardly near base; intermediate tibiae with two apical spurs; claws simple. Wings with the stigma of moderate size, marginal cell subtruncate and weakly appendiculate, 3 submarginal cells, the second short petiolate, the first and second each receiving a recurrent vein towards its apex, basal and transverse-median veins interstitial, anal lobes of hind wings small, cubitus of hind wings slightly antefurcal. Abdomen somewhat depressed-fusiform, not petiolate; a median incision extending from base to beyond middle length of first tergite; a strong apical fringe of recurved bristles on sternites 3-5, an incomplete fringe on sternites 2 and 6; sternite 7 compressed mesad as an arched, bristle-tipped keel; aedeagus an aculeus, the appressed lateral lobes few-toothed within.

FEMALE, allotype: Head somewhat wider than thorax, front concave, vertex convex, occipital carina as in male; eyes converging toward clypeus, plainly though rather shallowly emarginate within above the middle (more clearly emarginate than in the male); antennae with 12 segments, basally removed from the clypeus by a little less than the diameter of a socket; labrum concealed; clypeus with anterior median portion tumid, steeply declivous anteriorly, the margin produced as a truncation; mandibles and palpi as in male; ocelli forming a low triangle, a procurved incised line laterad of each posterior ocellus to the compound eyes. Thorax nearly as in male. Legs stout; tibiae and tarsi moderately spinose; coxae 1 and 3 contiguous, the intermediate ones slightly apart and grooved outwardly near base; fore tarsi with a well-developed rake; middle tibiae with two apical spurs; claws simple. Venation nearly as in male, but the second submarginal cell is just sessile above, instead of short petiolate as in the male, the third tr. cub. vein is sinuate and the second recurrent vein more convex than in the male. Abdomen about as in male, rather depressed, widest at apex of tergite 3, the first tergite with the fine longitudinal incision, venter flattish and with rather sparse feeble bristles; pygidium well defined, openly punctate, the margins less strong towards base.

Xenosphex xerophila Williams, new species.

(Text figures 1-8.)

MALE, holotype: Length 6 mm. Generally smooth and polished, puncturation sparse and fine. Black; clypeus, mandibles for basal half, and antennae beneath yellowish brown; apex of pronotal lobes, tegulae in part, axillary sclerites, and extreme base of wings creamy white, venation testaceous; large spot on scutellum pale yellow; coxae, trochanters and femora in part, dark brown; fore femora beneath and at apex, the tibiae above and all the tarsi in part, creamy white; abdominal tergite 2 almost entirely, and 3-6 in diminishing degree, and increasingly notched, creamy white. Vestiture: clypeus, face in part, upper genae, mesonotum anteriorly and its pleurae, more or less, propodeum posteriorly and widely bordering the dorsal disc, with silvery pile; the pile is particularly

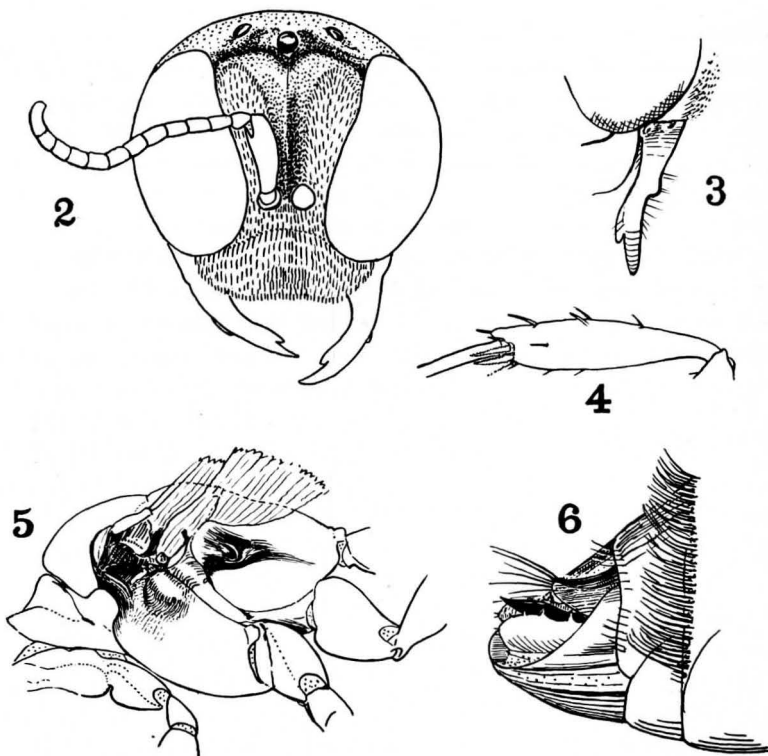


Figure 2. *Xenospheex xerophila*. Male, frontal view.

Figure 3. *Xenospheex xerophila*. Male. Mandible, from outer side.

Figure 4. *Xenospheex xerophila*. Male. Intermediate tibia.

Figure 5. *Xenospheex xerophila*. Male. Thorax, from side.

Figure 6. *Xenospheex xerophila*. Male. Apex of abdomen in sub-ventral position to show one of the fringes of recurved bristles (on sternite 5), the dark aculeus and the toothed lateral lobes.

dense on clypeus, face and propodeum; bristles on abdomen and legs pale. Clypeus shallowly emarginate; antennal segment 13 longer than the preceding and gently curved to a subacute point; ocelli in a low triangle, the posterior ones nearly twice their diameter from the compound eyes; sculpture of the head consisting generally of a few fine punctures and fine aciculations and reticulations. Thoracic notum sparsely punctate and aciculate, pleurae with denser punctures. Disc

of propodeum depressed, with very fine fanning striae and apically with transverse ones, the pleurae smooth and shining but with fine carinulae invading from the metapleural margin. Six hamuli on each hind wing. Tergites finely transversely aciculate; pygidium not margined, the disc with a few strong punctures.

HOLOTYPE, male (Citrus Experiment Station, Riverside, in fresh condition, from **near Cathedral City, Riverside County, California**, April 26, 1941 (P. H. Timberlake), taken on *Hugelia virgata* (Polemoniaceae).

FEMALE, allotype: Length 9.75 mm. Generally subopaque, propodeal pleurae and venter of abdomen shining, sculpture fine. Black; clypeus except triangular basal spot and the truncate apex pale yellow, mandibles yellowish on basal portion, flagellum of antennae yellowish brown, paler beneath, two wide spots posteriorly on pronotum, pronotal lobes apically, tegulae, axillary sclerites, extreme base of wings, costa more or less, and a large spot each side above on posterior face of the propodeum white; spot on scutellum pale yellow; venation testaceous; fore coxae blackish, intermediate coxae largely, and posterior coxae entirely, reddish brown; trochanters chiefly reddish brown, femora reddish brown, but fore femora obliquely white from middle length beneath to apex above, and the second and third narrowly whitish apically; tibiae creamy white above, fore tarsi creamy white, middle and hind tarsi with black at apex of segments, their apical segment blackish; bristles pale, first tergite with two basal whitish spots, tergite 2 with two wide basal white spots more or less joined mesad, tergite 3 with a wide white band notched mesad, tergites 4 and 5 with a subapical band, pygidium whitish, dusky at apex, sternum dusky for apical half. Antennae subelavate, article 12 longer than 11 and slightly arched. Anterior margin of hind wings with 7 hamuli; scutellum with fine grouped punctures; disc of propodeum coriaceous with an apical depression, sides finely striate; middle tibiae rather wide, compressed; fore tarsi with a comb of subspatulate bristles that in length are one and one-half times the width of the segments bearing them. Pygidium subtriangular with

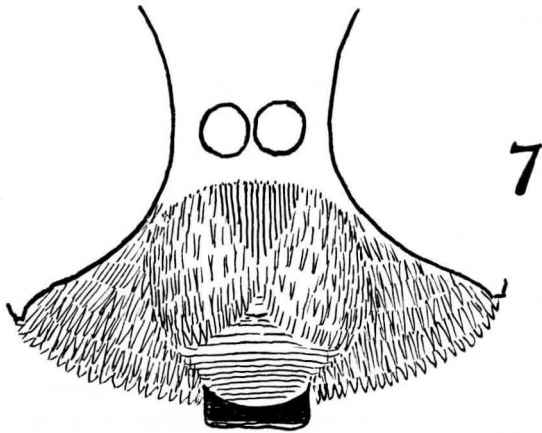


Figure 7. *Xenosphex xerophila*. Female. Clypeus, frontal view. The antennal sockets are outlined above the clypeus.

delicate bounding carinae, the disc with strong, well-separated punctures. Vestiture: silvery pile about as in male; there is no pile on the genae or occiput.

ALLOTYPE, female (Citrus Experiment Station, Riverside), in fresh condition, from **18 miles N. of Blythe, Riverside County**

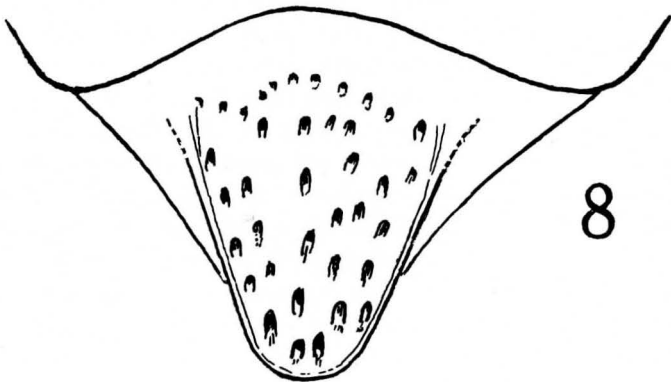


Figure 8. *Xenosphex xerophila*. Female. Pygidium.

California, October 27, 1951 (P. H. Timberlake), taken on *Pectis papposa* (Compositae).

I can find no genus at all closely related to *Xenosphex*. In the several synoptic tables used in attempting its determination it goes best in the subfamily Nyssoninae, although the mesonotal lamina (see Pate, 1938, Trans Amer. Ent. Soc. 64:118) is not developed. It comes closest to the tribe Gorytini, although having somewhat the facies of the Stizini, also of the subfamily Nyssoninae.

