

shield-like patches, which have been so conspicuous in all the larvæ I have met with, seems to have been noticed by the Professor in the larvæ he describes. The specimens of the perfect insect I have in my cabinet are rather smaller, and much darker, than the representation in Strecker's work.

### NOTES ON THREE SPECIES OF XYLOCOPA.

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#### XYLOCOPA MICANS Lepel.

*X. micans* Lepel., Hym. ii., 208, ♂; Smith, Tr. Ent. Soc. Lond. 1874, 297, ♂ ♀.

*X. vidua* Lepel., Hym. ii., 210, ♀.

*X. purpurea* Cress., Tr. Am. Ent. Soc., iv., 284, ♀; Smith, Tr. Ent. Soc. Lond., 1874, 299, ♀.

From Mr. L. Heiligbrodt I have received a specimen of *X. purpurea*, and it agrees in all respects with the female of *micans*. Accompanying this was a male, evidently of the same species. It agrees perfectly with Smith's description of *micans* ♂, presenting only a few slight characters not mentioned by him. The length is eleven lines, the sides of the venter are blue, the tibiæ and the basal joint of the tarsi are more or less testaceous beneath, and the intermediate and posterior tibiæ and a part of the basal joint of the posterior tarsi are clothed with fulvous pubescence.

#### XYLOCOPA VARIPUNCTA, n. sp.

♀. Length 13 lines. Black, with black pubescence; wings dark brown, with brassy and coppery reflections; flagellum beneath, except basal joints, piceous. Clypeus with large sparse punctures, the clypeus limited above by a smooth slightly elevated ridge; a tubercle between the antennæ, a small pit behind each posterior ocellus; base of the mandibles with few punctures and not excavated, labrum with three uneven ridges or tubercles. Disk of mesothorax and scutellum above without punctures, scutellum truncate. Abdomen punctured, the apical margins of the segments and the median line on segments three to five without punctures; the punctures on segments one and two finer and more numerous than those on the following segments.

Arizona. Two specimens (C. V. Riley). Related to the West Indian *X. mordax* Smith.

XYLOCOPA FIMBRIATA Fabr. A female specimen collected in the Yosemite Valley, Cal., by Mr. F. V. McDonald, adds this species to the fauna of the United States.