Ips pilifrons thatcheri

Scientific Name

Ips pilifrons thatcheri Wood, 1975

Diagnostic notes

Species:
-Has four spines on the elytral declivity and general appearance is similar to *I. borealis*.
-Potentially sympatric with related species *I. borealis*, *I. tridens*, *I. hunteri*, and morphologically similar species *I. pini*.
-Differs from related species by deep, coarse strial punctures, large size, 3.9–5.0 mm and from *I. pini* by uniseriately punctured discal interstriae.
Subspecies:
-Diagsnosable by female only.
-Female frons strongly protuberant, elevated area without median sulcus (groove) and not extending above level of eyes, width of elevated area less than half of width of frons, most with dense pile-like patches of setae; 3.9–4.9 mm (Wood 1982).

Ips pilifrons thatcheri, female frons
Image from Sarah Smith, Thomas Atkinson, and the USA National Museum of Natural History, Smithsonian Institution, Washington, D.C.

Ips pilifrons thatcheri, female frons

Ips pilifrons thatcheri, male frons

Morphological Summary

females

Body. 3.9-4.9 mm long, 2.5-2.7 times longer than wide; pronotum 1.0-1.1 times longer than wide.
Head. Epistomal margin with uniseriate row of tubercles not visible because of coarse vestiture. Frons outline protruding in lateral view; vestiture coarse and dense (hiding part of integument); surface sculpture near epistoma densely tuberculate-punctate or with isolated tubercles; central carina absent; central tubercle absent; central fovea absent; circular tubercles above top of eyes present - up to one third of all tubercles. Vertex and pronotum without stridulatory apparatus (including pars stridens). Antennal club sutures bisinuate.
Prothorax. Protibiae with three socketed teeth on apical half (does not include apical spine).
Elytra. Interstriae punctate (observed on interstriae 2 and 3 on middle third of elytral disc), punctures 0.6-0.8 times diameter of adjacent strial punctures (punctures and striae measured at steepest part of puncture wall), interstrial setae longer than width of scutellar shield, interstriae 1.4-2.0 times as wide as adjacent striae. Elytral declivity with four spines per side, spine 3 largest; spine 1 (largest on 2nd interstria) closer to suture than spine 2; spines 1 and 2 separated at base by distance greater than height of spine 1; spine 2 closer to spine 3 than spine 1; spine 3 pedunculate (capitate), apex acute, with apical half asymmetrical in lateral view; spines 2 and 3 on shared tumescence, not in line with spines 1 and 4 (posterodorsal view); declivital integument shiny.

males

Body. 3.9-4.9 mm long, 2.5-2.7 times longer than wide; pronotum 1.0-1.1

times longer than wide.

Head. Epistomal margin with uniseriate row of tubercles with gap at midline. Frons outline convex in lateral view; vestiture fine (not hiding part of integument); surface sculpture near epistoma with isolated tubercles; central carina absent; central tubercle absent, without or with pair of circular tubercles on either side of midline; transverse carina present, punctate; central fovea absent; circular tubercles above top of eyes present - up to one third of all tubercles. Vertex and pronotum without stridulatory apparatus (including pars stridens). Antennal club sutures bisinuate.

Prothorax. Protibiae with three socketed teeth on apical half (does not include apical spine).

Elytra. Interstriae punctate (observed on interstriae 2 and 3 on middle third of elytral disc), punctures 0.6-0.8 times diameter of adjacent strial punctures (punctures and striae measured at steepest part of puncture wall), interstrial setae longer than width of scutellar shield, interstriae 1.4-2.0 times as wide as adjacent striae. Elytral declivity with four spines per side, spine 3 largest; spine 1 (largest on 2nd interstria) closer to suture than spine 2; spines 1 and 2 separated at base by distance greater than height of spine 1; spine 2 closer to spine 3 than spine 1; spine 3 pedunculate (capitate), apex acute, with apical half asymmetrical in lateral view; spines 2 and 3 on shared tumescence, not in line with spines 1 and 4 (posterodorsal view); declivital integument shiny.

Ips pilifrons thatcheri, female head

Ips pilifrons thatcheri, male head

Ips pilifrons thatcheri, female declivity

Geographic Distribution

Species: Mexico (Coahuila); USA (Arizona, Colorado, Idaho, Nevada, New Mexico, Utah, Wyoming).
Subspecies: USA: (Nevada (Mount Wheeler)).

Hosts

Picea engelmanii (Wood 1982)

References

Cognato, A.I.2015. Biology, systematics, and evolution of *Ips*. *In* Bark beetles: biology and ecology of native and invasive species. *Edited by* F.E. Vega and R.W. Hofstetter. Elsevier, San Diego, California. Pp. 351–370.

Cognato, A.I. and Sun, J.H. 2007. DNA based cladograms augment the discovery of a new *Ips* species from China (Coleoptera: Curculionidae: Scolytinae). *Cladistics*, **23**: 539–551.

Wood, S.L. 1982. The bark and ambrosia beetles of North and Central America (Coleoptera: Scolytidae), a taxonomic monograph. *Great Basin Naturalist Memoirs*, **6**: 1–1359.

Internet resources

https://www.barkbeetles.info/regional_chklist_target_species.php?lookUp=1724

Ips pilifrons thatcheri, male declivity

Ips pilifrons thatcheri, female lateral habitus

Ips pilifrons thatcheri, male lateral habitus