

Ips bonanseai

Scientific Name

Ips bonanseai (Hopkins, 1905)

Diagnostic notes

- Has four spines on the elytral declivity and its general appearance is similar to *I. pini* (length 3.3–4.3 mm).
- Potentially sympatric in Arizona and northern Mexico with *I. pini*.
- Differs from *I. pini* by the frons central carina (elongate frons central tubercle) elongate tubercle reaching row of epistomal tubercles, and usually by its smaller size, 2.9–3.4 mm (Wood 1982). Also separated from *I. pini* by larger pronotal punctures near midline on posterior half: diameter of punctures similar to those in posterolateral areas (smaller in *I. pini*).

Morphological Summary

females

Body. 2.9-3.4(-3.8) mm long, 2.4-2.7 times longer than wide; pronotum 1.0-1.2 times longer than wide.

Head. Epistomal margin with uniseriate row of tubercles with elongate mesal tubercle or with gap at midline. Frons outline convex in lateral view; vestiture fine (not hiding part of integument); surface sculpture near epistoma densely tuberculate-punctate or with isolated tubercles; central carina present; central tubercle absent or present and single, separated from base of epistomal setae by 0.5-3 tubercle diameters, without pair of circular tubercles on either side of midline; transverse carina absent; frons central fovea present or absent; circular tubercles above top of eyes present - up to, or more than one third of all tubercles. Vertex and pronotum with stridulatory apparatus (pars stridens). Antennal club sutures bisinuate.

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

Elytra. Interstriae impunctate, rarely punctate (observed on interstriae 2 and 3 on middle third of elytral disc), punctures 0.3-0.5 times diameter of adjacent stria punctures (punctures and striae measured at steepest part of puncture wall), interstitial setae shorter than width of scutellar shield, interstriae 3-5 times as wide as adjacent striae. Elytral declivity with four spines per side, spine 2 or 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 tapered, apex acute or right-angled, with apical half symmetrical in lateral view; spines 2 and 3 on or not on shared tumescence, in line with spines 1 and 4 (posterodorsal view); declivital integument shiny.

males

Body. 2.9-3.4(-3.8) mm long, 2.4-2.7 times longer than wide; pronotum 1.0-1.2 times longer than wide.



Ips bonanseai, male frons



Ips bonanseai, female pronotum



Ips bonanseai, male declivity

Head. Epistomal margin with uniseriate row of tubercles with elongate mesal tubercle. Frons outline convex in lateral view; vestiture fine (not hiding part of integument); surface sculpture near epistoma densely tuberculate-punctate or with isolated tubercles; **central carina** present; central tubercle absent or present and single, separated from base of epistomal setae by 2-4(-5) tubercle diameters, without pair of circular tubercles on either side of midline; **transverse carina** absent; frons central fovea absent; circular tubercles above top of eyes present - up to, or more than one third of all tubercles. Vertex and pronotum without stridulatory apparatus (pars stridens). Antennal club sutures bisinuate.

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

Elytra. Interstriae impunctate, rarely punctate (observed on interstriae 2 and 3 on middle third of elytral disc), punctures 0.3-0.5 times diameter of adjacent stria punctures (punctures and striae measured at steepest part of puncture wall), interstitial setae shorter than width of scutellar shield, interstriae 3-5 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 or right-angled, with apical half asymmetrical in lateral view; spines 2 and 3 on or not on shared tumescence, in line with spines 1 and 4 (posterodorsal view); declivital integument shiny.



Ips bonansae, female declivity



Ips bonansae, male lateral habitus

Geographic Distribution

Guatemala; Honduras; Mexico (Chiapas, Chihuahua, Distrito Federal, Durango, Hidalgo, Jalisco, Mexico, Michoacan, Morelos, Nuevo Leon, Oaxaca, Puebla, Tamaulipas, Tlaxcala, Veracruz, Zacatecas); USA (Arizona)

Hosts

Pinus spp.

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.

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=1699