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.** Prothorax 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 strial punctures (punctures and striae measured at steepest part of puncture wall), interstrial 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); declival 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.
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 strial punctures (punctures and striae measured at steepest part of puncture wall), interstrial 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.

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

Internet resources