**Ips borealis thomasi**

**Scientific Name**

*Ips borealis thomasi* Hopping, 1965

**Synonyms**

*Ips thomasi* Hopping, 1965

**Diagnostic notes**

Species:
- Has four spines on the elytral declivity.
- Potentially sympatric with related species *I. tridens, I. pilifrons, I. perturbatus* and morphologically similar species *I. pini*.
- Differs from the related species by the even, minute punctures on the upper female frons, and smaller size, 2.6–3.8 mm and from *I. pini* (impunctate) by the uniseriately punctured discal interstriae.

Subspecies:
- Diagnosable by morphology of female head only.
- Female frons not, or very weakly protuberant, covered with sparse pubescence from epistoma to upper level of eyes; epistoma with tranverse row of tubercles.
- Wood (1982) provides more detail on subspecies level diagnosis.

**Morphological Summary**

**females**

**Body.** (2.6-)3.2-3.6(-4.1) mm long, 2.6-2.7 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 pair of circular tubercles on either side of midline; transverse carina absent; frons central fovea absent; circular tubercles above top of eyes absent. Vertex and pronotum without stridulatory apparatus (pars stridens). Antennal club sutures bisinuate.

**Prothorax.** Protibiae with three or four 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 0.3-0.5 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 2-3 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 tapered or straight sided with tapered apex, apex acute, with apical half symmetrical or asymmetrical in lateral view; spines 2 and 3 on shared tumescence, in line with spines 1 and 4 (posterodorsal view); declival integument shiny.
males

Body. (2.6-)3.2-3.6(-4.1) mm long, 2.6-2.7 times longer than wide; pronotum 1.0-1.1 times longer than wide.

Head. Epistomal margin with uniseriate row of tubercles uninterrupted medially or 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 pair of circular tubercles on either side of midline; transverse carina absent or present; frons central fovea absent; circular tubercles above top of eyes absent or present - up to 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 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 longer than width of scutellar shield, interstriae 2-3 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 tapered or straight sided with tapered apex, apex acute or right-angled, with apical half symmetrical or asymmetrical in lateral view; spines 2 and 3 on shared tumescence, in line with spines 1 and 4 (posterodorsal view); declivital integument shiny.

Geographic Distribution

Species: Canada (Alberta, British Columbia, Manitoba, New Brunswick, Newfoundland, Northwest Territories, Nova Scotia, Ontario, Prince Edward Island, Quebec, Saskatchewan); USA (Alaska, Colorado, Maine, Michigan, Minnesota, Montana, South Dakota, Wyoming).

Subspecies: Canada (Nova Scotia)

Hosts

Picea spp.

Notes


References


Internet resources