

# Ips tridens tridens

## Scientific Name

*Ips tridens tridens* (Mannerheim, 1852)

## Synonyms

*Bostrichus interruptus* Mannerheim 1852

## Diagnostic notes

Species:

-Has four spines on the elytral declivity and general appearance is similar to *I. borealis*.

-Potentially sympatric with related species *I. pilifrons*, *I. borealis*, *I. perturbatus* and morphologically similar species *I. pini*.

-Differs from the related species by the coarse, irregular punctures on the upper frons and small, shallow strial punctures, and from *I. perturbatus* and *I. pini* by uniseriately punctured discal interstriae.

Subspecies:

-Diagnosable by female only. Female frons not or weakly elevated; setae of frons sparse [in most specimens] (Wood 1982).

## Morphological Summary

### females

**Body.** (3.3-)3.8-4.3(-4.6) mm long, 2.5-3.0 times longer than wide; pronotum 1.0-1.3 times longer than wide.

**Head.** Epistomal margin with uniseriate row of tubercles uninterrupted medially or margin with uniseriate row of tubercles absent. Frons outline convex or protruding in lateral view; vestiture fine (not hiding part of integument) or coarse and dense (hiding part of integument); surface sculpture near epistoma densely tuberculate-punctate; 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 acutely angulate or bisinuate.

**Prothorax.** Protibiae with three, four or five socketed teeth on apical half (does not include apical spine).

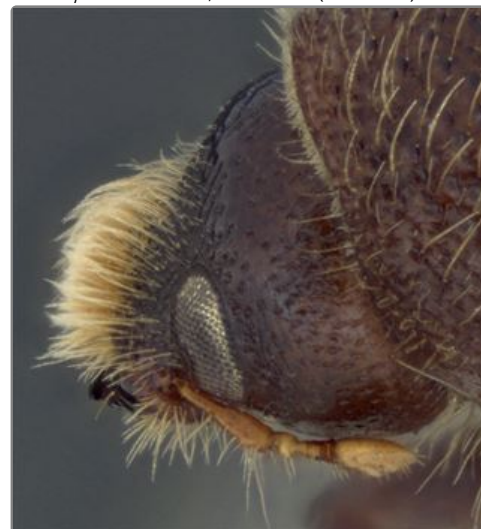
**Elytra.** Interstriae punctate (observed on interstriae 2 and 3 on middle third of elytral disc), punctures 0.3-0.4(-0.5) times diameter of adjacent strial punctures (punctures and striae measured at steepest part of puncture wall), interstitial setae longer than width of scutellar shield, interstriae 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 straight sided with tapered apex or pedunculate (capitate), apex right-angled or obtuse to rounded, with apical half symmetrical or asymmetrical in lateral view; spines 2 and 3 on shared tumescence, not in



*Ips tridens tridens*, female frons



*Ips tridens tridens*, female frons (non-setose)



*Ips tridens tridens*, female head, lateral

line with spines 1 and 4 (posterodorsal view); declivital integument mat or shiny.

#### males

**Body.** (3.3-)3.8-4.3(-4.6) mm long, 2.5-3.0 times longer than wide; pronotum 1.0-1.3 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 densely tuberculate-punctate; central carina absent; central tubercle absent; transverse carina absent; frons central fovea present or absent; circular tubercles above top of eyes 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-)0.4(-0.5) times diameter of adjacent striae punctures (punctures and striae measured at steepest part of puncture wall), interstitial setae longer 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 symmetrical or asymmetrical in lateral view; spines 2 and 3 on shared tumescence, in or not in line with spines 1 and 4 (posterodorsal view); declivital integument mat or shiny.

#### Geographic Distribution

Species: Canada (Alberta, British Columbia, Northwest Territories, Yukon); USA (Alaska, California, Idaho, Montana, Oregon, Washington, Wyoming).  
Subspecies: Canada (British Columbia); USA (Alaska, California, Oregon, Washington).

#### Hosts

*Picea* spp.

#### Notes

*I. borealis*, *I. pilifrons*, and *I. tridens* form clade (Cognato and Sun 2007).

#### References

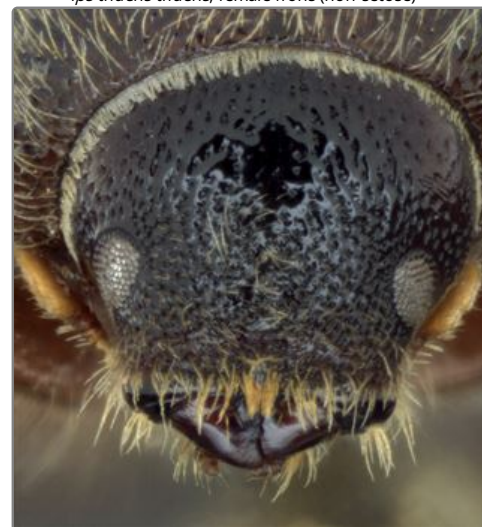
Cognato, A.I. 2015. Biology, systematics, and evolution of *Ips*. In *Bark beetles: biology and ecology of native and invasive species*. Edited by F.E. Vega and R.W. Hofstetter. Elsevier, San Diego, California. Pp. 351-370.

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



*Ips tridens tridens*, female frons (non-setose)



*Ips tridens tridens*, male frons



*Ips tridens tridens*, antenna

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=1731](https://www.barkbeetles.info/regional_chklist_target_species.php?lookUp=1731)



*Ips tridens tridens*, female declivity



*Ips tridens tridens*, male declivity



*Ips tridens tridens*, female lateral habitus



*Ips tridens tridens*, male lateral habitus



*Ips tridens tridens*, female lateral habitus