

# Ips acuminatus

## Scientific Name

*Ips acuminatus* (Gyllenhal, 1827)

## Synonyms

*Bostrichus geminatus* Zetterstedt, 1828

*Tomicus heydeni* Eichhoff, 1884

## Diagnostic notes

- Differs from all other European *Ips* spp. by the elytral declivity having three spines, of which the spine 3 is flattened and emarginate in males.
- Differs from the North American species *I. emarginatus* (5.5–7.0 mm) and *I. knausi* (4.9–6.5 mm) by its smaller size (2.2–3.9 mm).
- Differs from sister species *I. chinensis* by wider separation of spines 2 and 3.

## Morphological Summary

### females

**Body.** 2.2-3.9(-4.1) mm long, 2.3-2.6 times longer than wide; pronotum 1.1-1.3 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 densely tuberculate-punctate; central carina absent; central tubercle absent; transverse carina present, punctate; 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 or punctate (observed on interstriae 2 and 3 on middle third of elytral disc), punctures 0-0.8 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 three 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 1 than

spine 3; spine 3 tapered, apex acute or right-angled, with apical half symmetrical in lateral view; spines 2 and 3 not on shared tumescence; declivital integument shiny.

### males

**Body.** 2.2-3.9(-4.1) mm long, 2.3-2.6 times longer than wide; pronotum 1.1-1.3 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 densely tuberculate-punctate; central carina absent; central tubercle absent; transverse carina present, punctate; 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



*Ips acuminatus*, male frons



*Ips acuminatus*, male declivity



*Ips acuminatus*, female declivity



*Ips acuminatus*, male lateral habitus

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 or punctate (observed on interstriae 2 and 3 on middle third of elytral disc), punctures 0-0.8 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 three 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 1 than spine 3; spine 3 emarginate, apex right-angled or obtuse to rounded, with apical half asymmetrical in lateral view; spines 2 and 3 not on shared tumescence; declivital integument shiny.

## Geographic Distribution

Austria; Belgium; Bosnia-Herzegovina; Bulgaria; Belarus; Croatia; China (Fujian, Gansu, Hebei, Heilongjiang, Henan, Hubei, Inner Mongolia, Jilin, Liaoning, Qinghai, Sichuan, Shaanxi, Shandong, Shanxi, Xinjiang); Czechia; Denmark; Estonia; Finland; France; Germany; Great Britain; Greece; Hungary; Ireland; Italy; Japan; Kazakhstan; Latvia; Lithuania; Luxembourg; Macedonia; Moldova; Mongolia; Montenegro; The Netherlands; Norway; North Korea; Poland; Romania; Russia: throughout; Serbia; South Korea; Slovakia; Slovenia; Spain; Sweden; Switzerland; Syria; Turkey; Taiwan; Ukraine

## Hosts

*Pinus* (also *Abies*, *Larix*, *Picea*)

## 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.
- Grüne, S. 1979. *Brief illustrated key to European bark beetles*. Hannover, Germany, M. and H. Schaper.
- Knížek M. 2011. Scolytinae. In *Catalogue of Palaearctic Coleoptera, Vol. 7*. Edited by I. Löbl and A. Smetana. Apollo Books, Stenstrup, Denmark, Pp. 204–251.

## Internet resources

<http://www.padil.gov.au/pests-and-diseases/pest/main/135619>