

# Ips shangrila

## Scientific Name

*Ips shangrila* Cognato and Sun, 2007

## Diagnostic notes

-Has four spines on the elytral declivity; spine 3 tapered and connected to similarly sized spine 2 by swollen base; elytral disc with interstriae punctate throughout. Morphological summary and key allow interpretation of this species as either having three spines with spine 2 emarginate, or having four simple spines with spines 2 and 3 sharing tumescence.

-Frons with central tubercle weak or absent; central carina absent; epistomal edge with row of tubercles interrupted near middle.

-Some specimens may not be possible to distinguish from females of *I. duplicatus* by external morphology.

## Morphological Summary

### sexes combined

**Body.** 3.0-4.0 mm long, 2.4-2.7 times longer than wide; pronotum 1.0-1.1 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 absent; central tubercle 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 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 0.3-0.7 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 three or 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 or emarginate, apex acute or right-angled, with apical half symmetrical in lateral view; spines 2 and 3 on shared tumescence, in line with spines 1 and 4 (posterodorsal view); declivital integument shiny.

## Geographic Distribution

China (Gansu, Qinghai, Shaanxi, Sichuan, Xizang, Yunnan).



*Ips shangrila*, frons



*Ips shangrila*, elytral disc



*Ips shangrila*, declivity



*Ips shangrila*, lateral habitus

## Hosts

*Picea* spp. Principally *P. crassifolia*.

## Notes

Sister species of *I. amatinus*, see 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.
- 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.



*Ips shangrila* male dorsal habitus

Rotatable image of *Ips shangrila* Cognato & Sun 2007  
(click on dorsal habitus images)

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