

Kako prepoznati karantenske vrste gozdnih škodljivcev?

II. del

Karantenski škodljivi organizmi za gozdne in
druge lesnate rastline

DELAVNICA ZA FITOSANITARNE IN GOZDARSKE INŠPEKTORJE

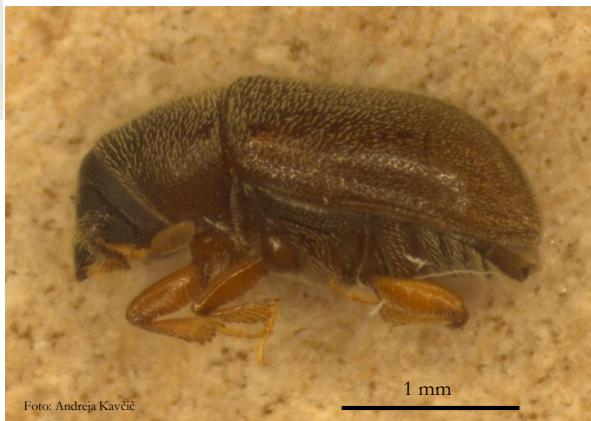
Andreja Kavčič





Foto: Pest and Diseases Image Library, Bugwood.org

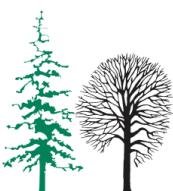
Dendrolimus sibiricus
Tschetverikov, 1908
(Lepidoptera: Lasiocampidae)
SIBIRSKA SVILENA KOKLJICA



Polygraphus proximus
Blandford, 1894
(Coleoptera: Curculionidae, Scolytinae)
SAHALINSKI JELOV LIČAR



Xylosandrus crassiusculus
(Motschulsky, 1866)
(Coleoptera: Curculionidae, Scolytinae)
AZIJSKI AMBROZIJSKI PODLUBNIK



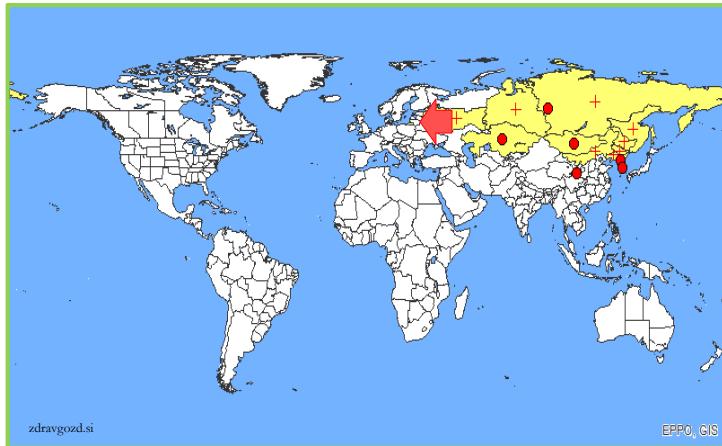
Dendrolimus sibiricus

SIBIRSKA SVILENA KOKLJICA

A2 seznam EPPO (2002)

Priloga I.A.I Direktive DS 2000/29/ES (2014)

lokalno na območju EPPO (Moskva, EU – ne)

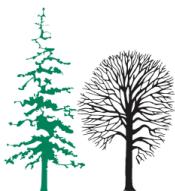


GOSTITELJI:

iglavci (> 20 vrst)

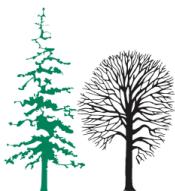
macesen (*Larix* spp.), bor (*Pinus* spp.), smreka (*Picea* spp.), jelka (*Abies* spp.), čuga (*Tsuga* spp.)

➤ najpomembnejši defoliator iglavcev (propad sestojev v 2 – 3 letih)



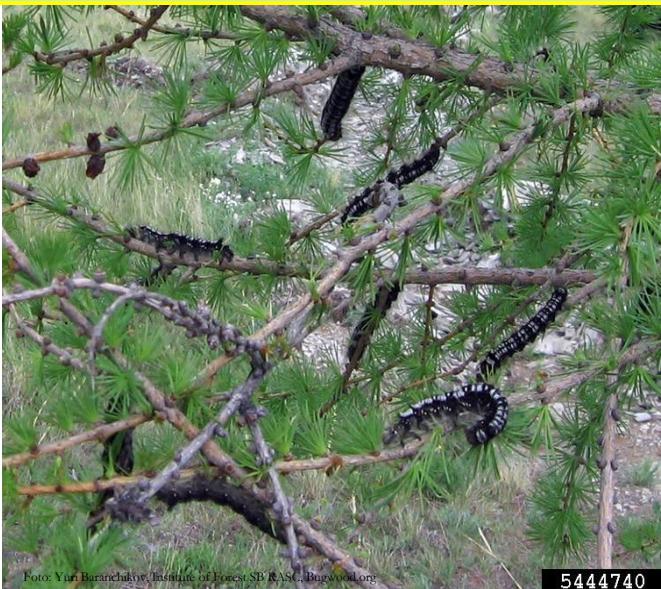
Dendrolimus sibiricus

SIBIRSKA SVILENA KOKLJICA



Dendrolimus sibiricus

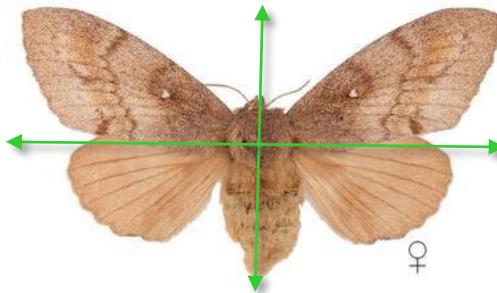
SIBIRSKA SVILENA KOKLJICA



Dendrolimus pini

BOROVA KOKLJICA

Dendrolimus pini



Dendrolimus sibiricus



♀



♂



♂



Foto: Keith Tailby

Foto: Todd Gilligan, Screening Aids, USDA APHIS ITP, Bugwood.org



♂



Foto: Yuri Baranchikov, Institute of Forest
SB RAS, Bugwood.org

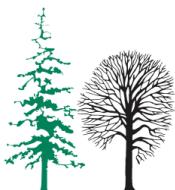
5444741



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Dendrolimus pini

BOROVA KOKLJICA



Thaumetopoea pityocampa

PINIJEV SPREVODNI PRELEC

VI. – VIII.



Foto: D.D. Cadahia, Subdirección General de Sanidad Vegetal, Bugwood.org

UGA0656002

prezimovanje



Foto: John H. Green, USDA Forest Service, Bugwood.org



Foto: D.D. Cadahia, Subdirección General de Sanidad Vegetal, Bugwood.org



Foto: Wolfgang Wagner, 2005 – 2016, www.purgm.de

UGA065

Lymantria monacha

SMREKOV GOBAR

VII. – IX.

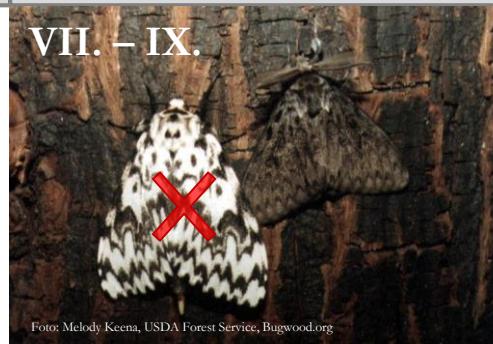


Foto: Melody Keena, USDA Forest Service, Bugwood.org



Foto: Petr Kapitola, Central Institute for Supervising and Testing in Agriculture, Bugwood.org



Foto: Daniel Adam, Office National des Forêts, Bugwood.org



Foto: Stanislaw Kinelski, Bugwood.org

UGA1258010



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Panolis flammea
BOROVA SOVKA

IV. – V.



Foto: Stanisław Kinelski, Bugwood.org

UGA1258007



Foto: Stanisław Kinelski, Bugwood.org

UGA1258003



Foto: Landesforstpräsidium Sachsen, Bugwood.org

UGA1259145



Foto: Stanisław Kinelski, Bugwood.org

UGA1258004

Sphynx pinastri
BOROV VEŠČEC

V. – VII.



Foto: Stanisław Kinelski, Bugwood.org

UGA1258046



Foto: Stanisław Kinelski, Bugwood.org

UGA1258022



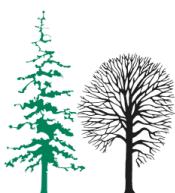
Foto: Tony Pittaway



Foto: Stanisław Kinelski, Bugwood.org

UGA1258026

prezimovanje



Polygraphus proximus

SAHALINSKI JELOV LIČAR

A2 seznam EPPO (2011)

lokalno na območju EPPO (Moskva, EU – ne)

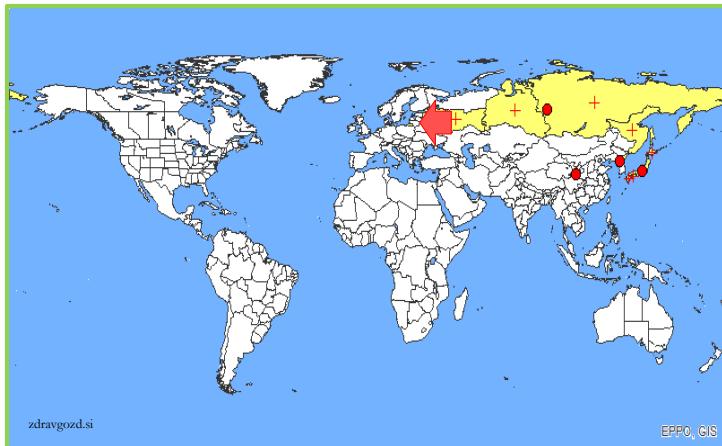


Foto: Andreja Kavčič



GOSTITELJI:

iglavci (*Abies* spp.)

macesen (*Larix* spp.), bor (*Pinus* spp.), smreka (*Picea* spp.), čuga (*Tsuga* spp.)

- napada tudi vrste, ki v naravnem okolju niso prisotne
- PRIMARNI škodljivec – propad zdravih dreves v 1–2 letih



Polygraphus proximus
SAHALINSKI JELOV LIČAR



rjavenje krošnje



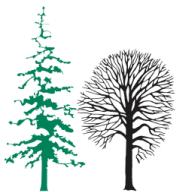
odpadanje iglic
(defoliacija)



izcejanje smole



odstopanje skorje –
prečni dvorogi rovni sistemi



Polygraphus polygraphus
DVOJNOOKI SMREKOV LIČAR

Tomicus minor
MALI BOROV STRŽENAR

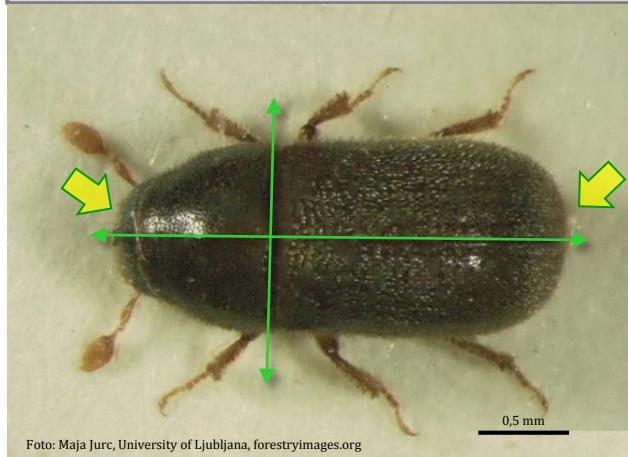


Foto: Maja Jurc, University of Ljubljana, forestryimages.org



10–15 x



FotoBeat Förster, Swiss Federal Institute for Forest, Snow and
Landscape Research, Bugwood.org

UGA1269042

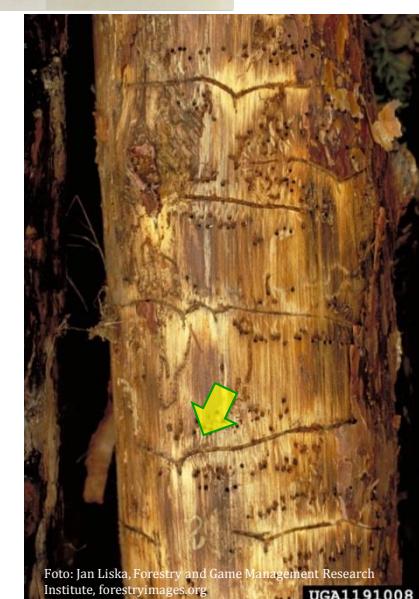


Foto: Jan Liska, Forestry and Game Management Research
Institute, forestryimages.org

UGA1191008



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Pityokteines curvidens

KRIVOZOBI JELOV LUBADAR



Foto: Maja Jurc, University of Ljubljana, forestryimages.org

Pityokteines spinidens

OSTROZOBI JELOV LUBADAR



Foto: Maja Jurc, University of Ljubljana, forestryimages.org

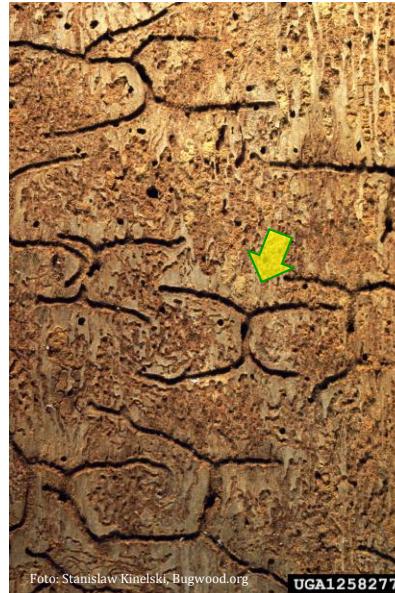


Foto: Stanislaw Kinelski, Bugwood.org

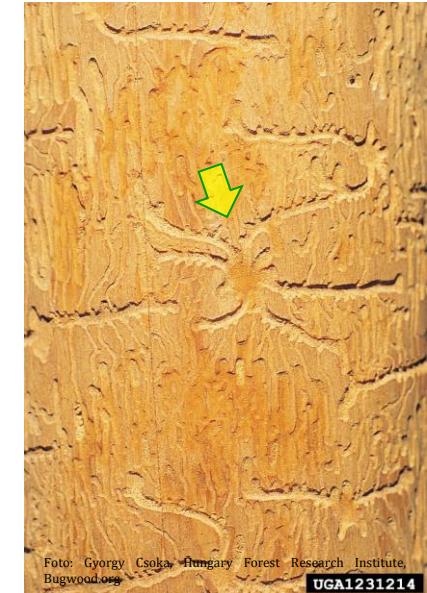


Foto: Gyorgy Csoka, Hungary Forest Research Institute, Bugwood.org



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Pityokteines vorontzowi
VORONTZOWOV JELOV LUBADAR



Foto: Maja Jurc, University of Ljubljana, forestryimages.org

Pityophthorus pityographus
JELOV VEJNI LUBADAR

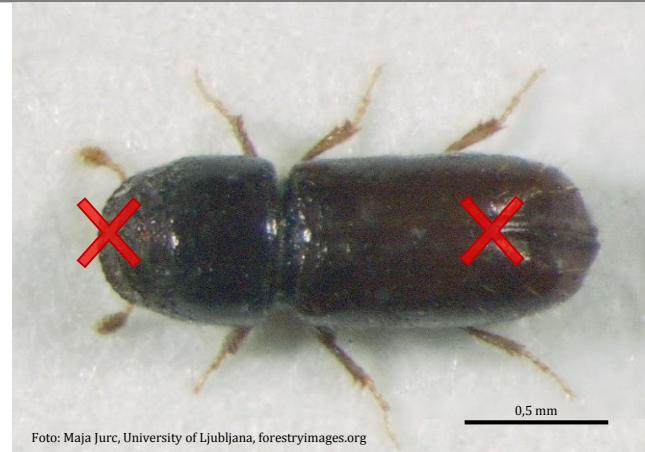


Foto: Maja Jurc, University of Ljubljana, forestryimages.org



Foto: Milan Zubrik, Forest Research Institute - Slovakia
Bugwood.org

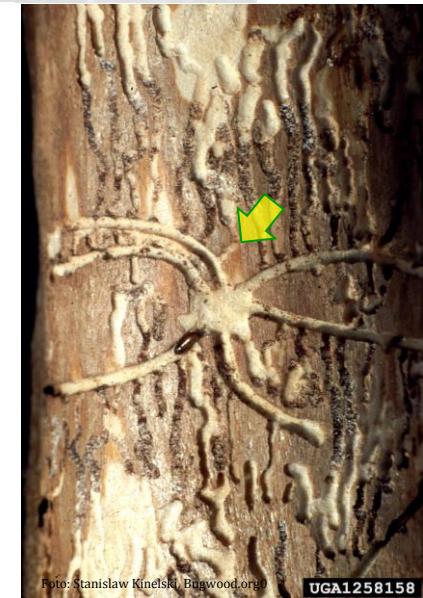
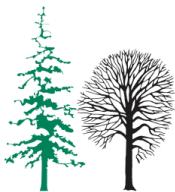


Foto: Stanislaw Kinecki, Bugwood.org

UGA1258158



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Pityogenes bidentatus
DVOZobi BOROV LUBADAR

Ips cembrae
VELIKI MACESNOV LUBADAR



Foto: Maja Jurc, University of Ljubljana, forestryimages.org

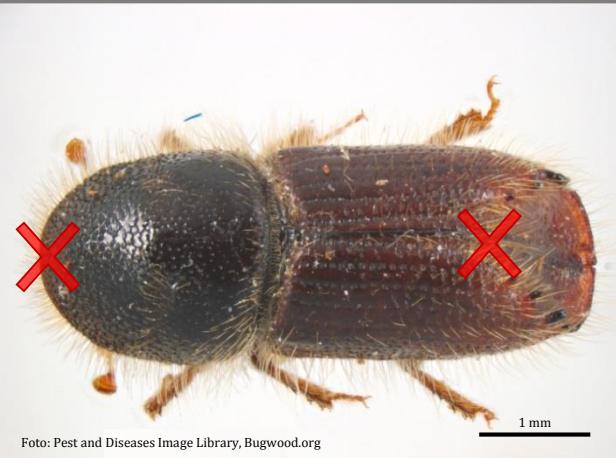


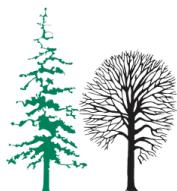
Foto: Pest and Diseases Image Library, Bugwood.org



Foto: Stanislaw Kinski, Bugwood.org



Foto: Ferenc Lakatos, University of West-Hungary, Bugwood.org



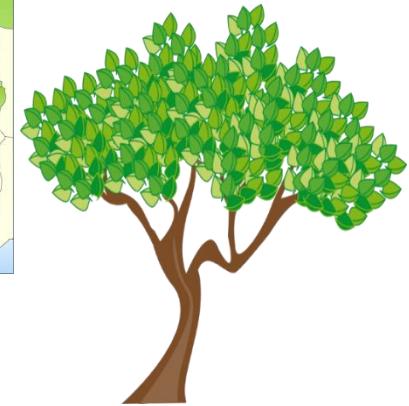
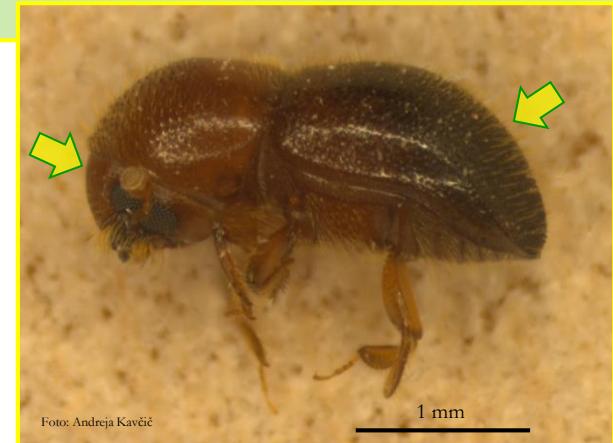
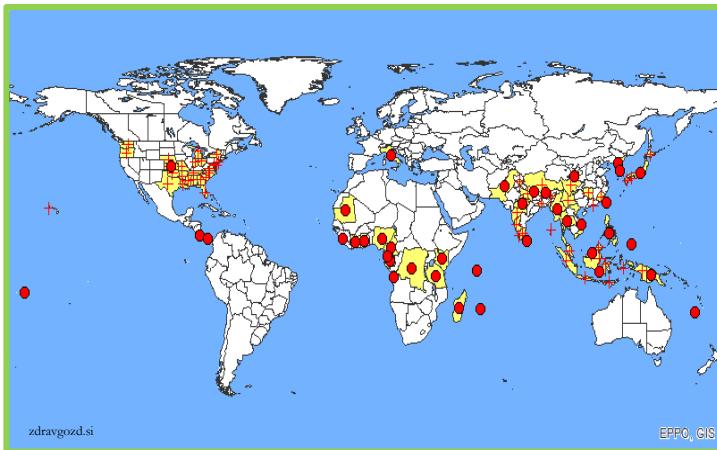
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Xylosandrus crassiusculus

AZIJSKI AMBROZIJSKI PODLUBNIK

Opozorilni seznam EPPO (2009)

EU – prisoten

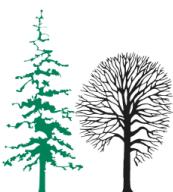


GOSTITELJI:

listavci (izrazit polifag!)

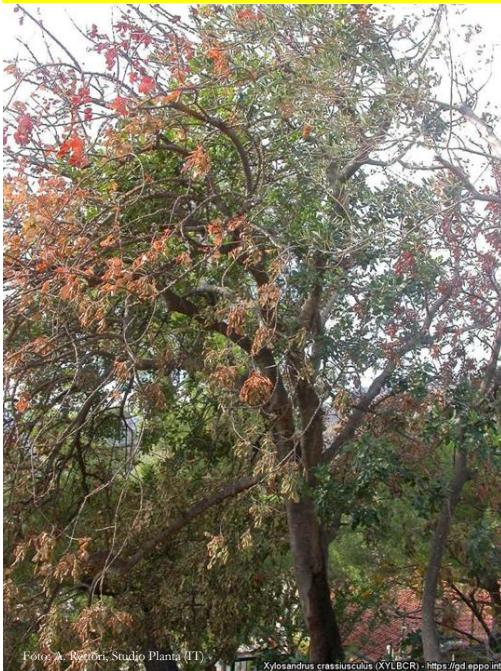
ekonomsko pomembne vrste: jablana, češnja, sliva, breskev, ...; gozdne in okrasne lesnate rastline iz rodov *Acacia*, *Alnus*, *Azalea*, *Cornus*, *Hibiscus*, *Magnolia*, *Prunus*, *Quercus*, *Populus*, *Salix*, *Ulmus*; ...

➤ PRIMARNI škodljivec – propad zdravih dreves, PARTENOGENEZA

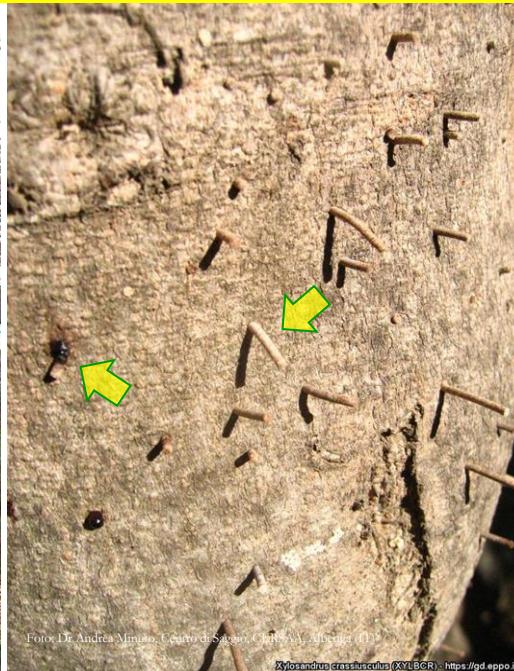


Xylosandrus crassiusculus

AZIJSKI AMBROZIJSKI PODLUBNIK



uvelost
rjavenje in sušenje listov,
odmiranje vej,
lomljenje poganjkov
(hiranje drevesa)



črvina – paličaste strukture
okrogle vhodne odprtinice

modrikasto obarvanje lesa
– glive *Ambrosiella* spp.



rovni sistemi v lesu



Xylosandrus germanus
ČRNI LESAR

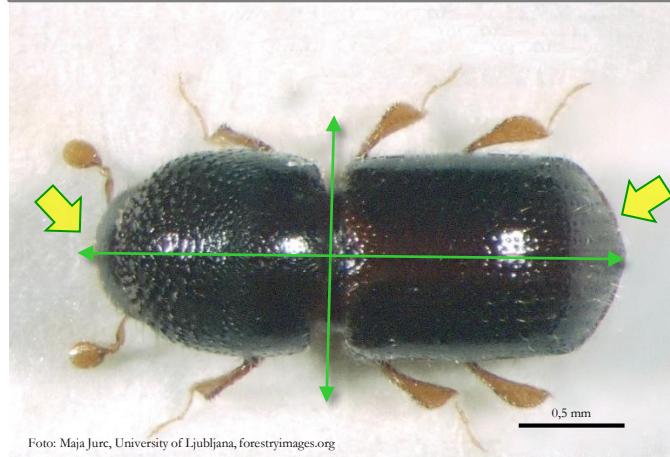


Foto: Maja Jurec, University of Ljubljana, forestryimages.org

Xyleborus dispar
VRTNI LESAR

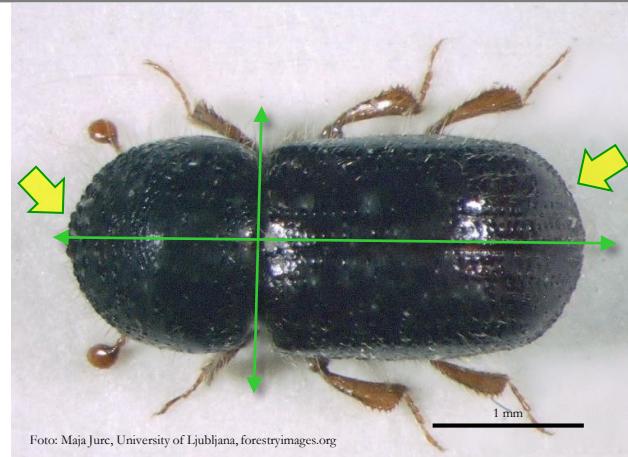


Foto: Maja Jurec, University of Ljubljana, forestryimages.org



Foto: Beat Forster, Swiss Federal Institute for Forest, Snow and Landscape Research, Bugwood.org

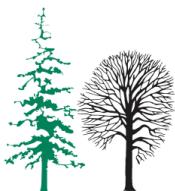


Foto: Daniel Adam, Office National des Forêts, Bugwood.org

UGA2101031



Foto: Beat Forster, Swiss Federal Institute for Forest, Snow and Landscape Research, Bugwood.org



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Xyloterus domesticus
BUKOV LESTVIČAR



Foto: Maja Jurec, University of Ljubljana, forestryimages.org



Foto: Milan Zubrik, Forest Research Institute - Slovakia Bugwood.org

Xyloterus signatus
HRASTOV LESTVIČAR



Foto: Maja Jurec, University of Ljubljana, forestryimages.org

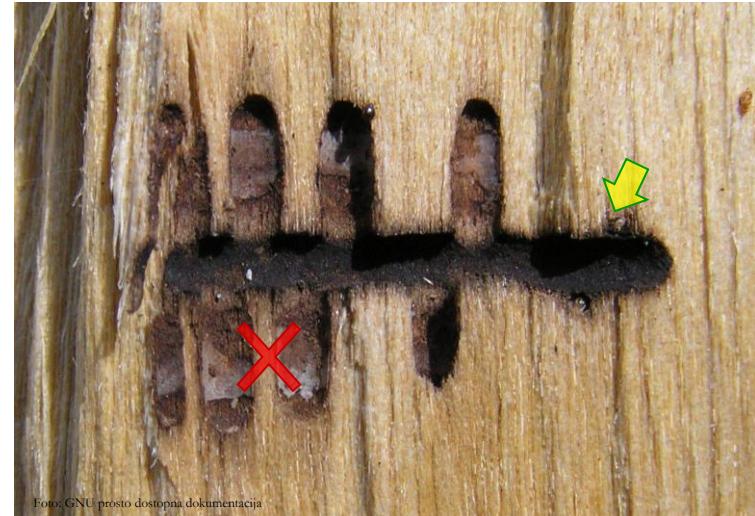
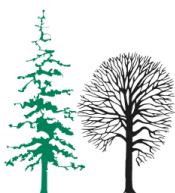


Foto: GNU prosto dostopna dokumentacija



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Platypus cylindrus
HRASTOV STRŽENAR



Foto: Maja Junc, University of Ljubljana, forestryimages.org



Foto: Ronald L. Billings, Texas Forest Service, Bugwood.org



Foto: USDA Forest Service Archive, USDA Forest Service, Bugwood.org **UGA0284055**

Hylecoetus dermestoides
NAVADNI (BUKOV) VRTOVIN



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www.naturefoto2000.com

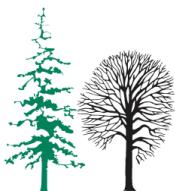


Foto: Ferenc Lakatos, University of West Hungary, Bugwood.org



Foto: Milan Zubník, Forest Research Institute - Slovakia, Bugwood.org

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Zaključki:

Simptomi + / -

Znaki + / -

Sum → VZOREC → LVG
morphološka analiza

VZOREC

Dendrolimus sibiricus:

- ✓ metulji
- ✓ gosenice

Poligraphus proximus:

- ✓ hrošči
- ✓ ličinke v skorji
- ✓ (skorja z rovnim sistemom)

Xylosandrus crassiusculus:

- ✓ hrošči
- ✓ ličinke v rovu
- ✓ (del drevesa z rovnim sistemom
(veja, čok))



Hvala za pozornost!

