EUROPEAN AND MEDITERRANEAN PLANT PROTECTION ORGANIZATION
ЕВРОПЕЙСКАЯ И СРЕДИЗЕМНОМОРСКАЯ ОРГАНИЗАЦИЯ ПО КАРАНТИНУ И ЗАЩИТЕ РАСТЕНИЙ
ORGANIZATION EUROPEENNE ET MEDITERRANEENNE POUR LA PROTECTION DES PLANTES

Data Sheets on Forest Pests

Ips golovjankoi

IDENTITY

Name: *Ips golovjankoi* Pjatnitzkii
Synonym: *Orthotomicus golovjankoi* Pjatnitzkii
Taxonomic position: Insecta: Coleoptera: Scolytidae
Common Name: Golovjanko's engraver (English); Короед Головянко (Russian)
Bayer computer code: ORTCGO

HOSTS

Ips golovjankoi attacks pine, especially *Pinus koraiensis, P. sibirica* and *P. x funebris*, and spruce, especially *Picea ajanensis (= P. jezoensis)* and *P. obovata (= P. alpestris = P. petchorica).*

GEOGRAPHICAL DISTRIBUTION

EPPO region: Russia (north-eastern Siberia, east of southern Siberia, Transbaikalia, southern Far East).
Asia: northern China, Northern Japan, northern Korea, Russia (north-eastern Siberia, east of southern Siberia, Transbaikalia, southern Far East) (Pavlovskii & Shtakelberg, 1955).
EU: Absent.

BIOLOGY

The flight of *I. golovjankoi* occurs in May. The pest makes galleries in the bark and rarely reaches the sapwood. The female gallery has the form of an irregular elongated area, in the enlarged part of which the female lays eggs. Larval galleries cross each other (Fig. 1). Young beetles appear in September and overwinter under the bark. The developmental cycle of the pest takes one year. In the region of its present distribution, *I. golovjankoi* more often attacks trunks of *Pinus koraiensis* and *Picea ajanensis*. Less often the pest attacks *Pinus x funebris* and *Picea obovata*. It actively attacks cut wood and dead trees, especially butt parts of trunks, but also stumps and sometimes branches (Kurentsov, 1934, 1935, 1941).

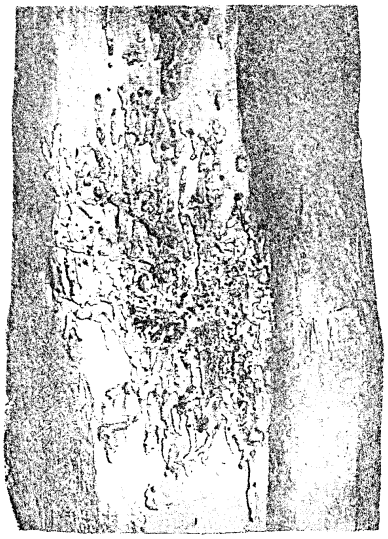

Fig. 1 - Galleries of *Ips golovjankoi* (Stark, 1952)

DETECTION AND IDENTIFICATION

Symptoms

The characteristic symptoms for *I. golovjankoi* are holes in the bark and species-diagnostic gallery systems with galleries not touching the sapwood.

Morphology

Larva

Typical *Ips* larva, white, legless, with lightly sclerotized head.

Adult

The adult of *I. golovjankoi* is dark-brown, with an elongated body, 2.7 – 3.5 mm long. Antennae and legs are slightly lighter then the rest of the body. The club of the antennae has three fissures on the exterior side and only one on the interior side. The length of the club is equal to its width. The front is slightly flattened under the mouth (more obvious in the case of males), with unclear longitudinal prominence, covered by rare yellow hairs and punctuated with two types of points: dense small points and rare larger points. The head seems matt because of this punctuation. The pronotum is slightly longer than wide, with parallel lateral sides in the main part, and slightly narrowed in the back part. It is punctuated with rather deep points, covered in the front part by two types of hairs, short and long, and only by short yellow hairs in the main part. Elytra with parallel borders and longitudinal rows of points reaching the vertical elytral depression. The space between these rows is as wide as the width of the rows and covered by deep rare points. The elytral depression is shallow, flat, round, punctuated with large round points, with 3 conic teeth on each elytrum, which are smaller and situated further from the border of the elytra in the case of female, a fact which helps to distinguish females from males. At the tail end, each elytrum has 3 or 4 small prominences situated around the elytral depression (Stark, 1952).

MEANS OF PEST MOVEMENT AND DISPERSAL

The natural spread of the pest with flying adults is not very fast. All life stages of *I. golovjankoi* may be easily transported with any commodities of untreated pine or spruce wood with bark.

PEST SIGNIFICANCE

Economic Impact

Some authors have claimed that *I. golovjankoi* is an important pest of pine and spruce in the region of its present distribution. However, as the pest usually attacks heavily stressed or dead trees and feeds only in the bark not touching the sapwood, it is difficult to believe that it could be economically important. The pest may possibly increase the damage caused by other coniferous pests (both defoliators and xylophagous) (Stark, 1952).

Environmental Impact

No particular environmental impact has been noted.

Control

No official control efforts are undertaken in the area of the present distribution of *I. golovjankoi* against this pest. Only general control measures against bark beetles are used, which include forestry and sanitary measures (improving the resistance of forests, cutting and eliminating all infested trees, cutting of "trapping trees" followed by their treatment), treatments with chemical and/or biological preparations (lindane, phoxim, dichlorvos). Pheromones of the pest are not known.

Phytosanitary risk

I. golovjankoi is not a quarantine pest for any individual country (as far as is known) or any regional plant protection organization. It is very likely to be transported with any untreated wood commodities of pine or spruce that carry bark and could also be present on cut branches (including Christmas trees). The climate in the region of its present distribution is similar to many parts of northern and central Europe. It is, therefore likely to find suitable conditions and susceptible host plants (pine and spruce species) in many areas within the EPPO region. It is considered as a forest pest of low importance in the area where it occurs and its life style indicates that it would not be a serious pest elsewhere.

PHYTOSANITARY MEASURES

The major risk of spreading *Ips golovjankoi* is with pine and spruce wood in which eggs, larvae, pupae and adults may be under the bark. The risk can, for the most part, be eliminated by removal of bark.

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