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

Data Sheets on Forest Pests

Turcmenigena varentzovi

IDENTITY

Name: *Turcmenigena varentzovi* Melgunov
Synonym: *Turcmenigena warentzovi* Melgunov
Taxonomic position: Insecta: Coleoptera: Cerambycidae
Common Name: Saxaul longhorn beetle, Varentsov's longhorn beetle (English); Саксауловый усач, усач Варенцова (Russian).
Bayer computer code: TURCVA

HOSTS

Turcmenigena varentzovi attacks mainly saxauls, especially *Haloxylon aphyllum* and *H. persicum*, but also *Salsola*, especially *S. richteri* (Plavilshchikov, 1940; Makhnovskii, 1955; Pavlovskii & Shtakelbergl, 1955; Maslov, 1988).

GEOGRAPHICAL DISTRIBUTION

EPPO region: Absent
Asia: Kazakhstan, Turkmenistan, Uzbekistan (Plavilshchikov, 1940; Pavlovskii & Shtakelbergl, 1955; Maslov, 1988).
EU: Absent

BIOLOGY

The mass flight of *T. varentzovi* occurs from June to the end of July, sometimes lasts in August. The pest attacks stressed, dying and cut trees. Larvae develop in wood in the region of the root collar: in butts, root spurs and roots. The developmental cycle of the pest takes 4 years (Plavilshchikov, 1940; Makhnovskii, 1955; Maslov, 1988).

DETECTION AND IDENTIFICATION

Symptoms

Characteristic symptoms are: large entrance and emergence holes in trunks, peeling bark, beetles sitting on the trunks, tunnels made by big larvae and wilting trees.

Morphology

No data is available on the morphology of eggs or larvae.

Adult

The adult of *T. varentzovi* is 20-35 mm long, uniformly chestnut-brown, covered by dense short yellowish-grey hairs, characterised first of all by a very large male pronotum (fig. 1). The female is usually similar to females of the genera *Hesperophanes* and *Trichoferus*. The head is small and short, flat or even depressed between the antennae, widely punctuated. It has a transversal clypeus and a narrow longitudinal fissure between the antennae and the eyes. The eyes are very big and largely facetted. The antennae do not reach further than the mid length of

the elytra. Antennal segments are covered by small flat-lying hairs and cilia. The first antennal segment is wide and significantly longer than other segments. The 11th antennal segment may be equal, longer or shorter than the third segment. The male pronotum is much longer than its width, only twice the length of the elytra and not narrower than the elytra; it is slightly transversely laced in the middle, has a light longitudinal line in the middle, dense punctuation and several deep depression-like points. The female pronotum is small, slightly bigger in length than in width, and much narrower than the elytra; it has a light longitudinal line in the middle. The cutellum is punctuated and has a longitudinal line or fissure. The elytra are rarely punctuated, have parallel borders and are rounded at the top. The thorax, abdomen, femurs and tibiae have small dense punctuation. The legs are rather thin, the femurs are slightly flattened, the tarsae are short and its segments have a deep fissure on the under-side. The first segment of the back legs is almost equal in length to the second and third together. The firth abdominal sternite is transverse and rounded at the top. The female abdomen exceeds the elytra and its end can be seen from above (Plavilshchikov, 1940).

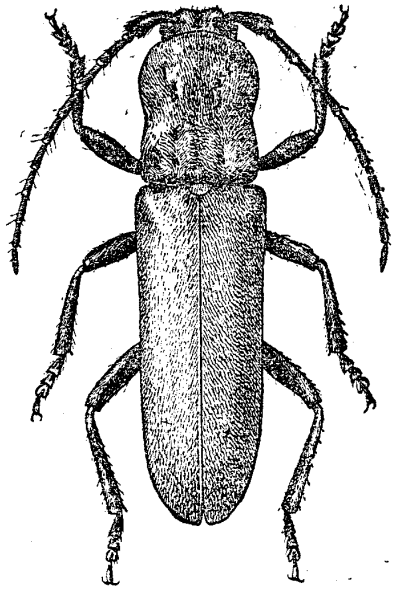

Fig. 1. Adult of *Turcmenigena varentzovi* (Plavilshchikov, 1940)

MEANS OF PEST MOVEMENT AND DISPERSAL

The natural spread of the pest with flying adults is fast. Because *T. varentzovi* may be hidden in the wood and therefore difficult to detect, it may be easily transported with untreated saxaul wood products moving in trade. The pest may also be carried as a hitchhiker on planting material.

PEST SIGNIFICANCE

Economic Impact

T. varentzovi is one of the most important pests of saxaul in the region of its present distribution. It may attack slightly stressed and almost healthy trees of different ages and continues to damage the same trees during several consecutive years causing their death. The pest mainly occurs in desert forests and plantations, which are very important for sand protection against erosion. The pest is able to kill infested trees either itself or in association with a cossid *Holcocera campiola*, saxaul buprestids of the genus *Sphenoptera* and/or other pests (Plavilshchikov, 1940; Maslov, 1988).

Environmental Impact

Because it is a tree-killer, *T. varentzovi* is able to alter ecological relationships where saxaul is an important component of the ecosystems. The pest mainly damages forests on sand deserts and may alter desert environment.

Control

Control efforts are undertaken in the area of the present distribution of *T. varentzovi*. Control measures include forestry and sanitary measures (regulation of pasturage, improving the resistance of forests, cutting and elimination of all infested trees), treatments with chemical and biological preparations (Maslov, 1988).

Phytosanitary risk

T. varentzovi is not a quarantine pest for any individual country (as far as is known) or any regional plant protection organization. It is considered as a very serious forest pest in areas where it occurs. It is likely to establish in all saxaul areas in the world. It is unlikely to be transported in planting material since the species does not attack branches, small trunks or roots which constitute planting material. Adults may, however, be resting on the surface of such material.

PHYTOSANITARY MEASURES

The major risk of spreading of *T. varentzovi* is with saxaul wood in which eggs, larvae, pupae and young adults may be under the bark and in the wood. Adults may also be transported on the surface of trunks. Wood should be debarked and inspected for bore holes.

DECISION OF THE EPPO PANEL ON QUARANTINE PESTS FOR FORESTRY

The EPPO Panel on Quarantine Pests for Forestry provided the Pest Risk Assessment for *Turcmenigena varentzovi* at the meeting in Vilnius, (LT, 2002-03-12/14). The general opinion of the Panel was that the pest might probably present an environmental risk for dry areas of Mediterranean countries, and to saxaul plantations on salty soils. The Panel suggested not proposing *T. varentzovi* as a quarantine pest for forestry but to collect more information on the occurrence and importance of saxauls in the EPPO region and then recommend it to be considered by other EPPO Panels, which deal with environmental risk.

BIBLIOGRAPHY

International Organization for Plant Information. Internet site “Provisional Global Plant Checklist”, 1996-1998,: www.bgbm.fu-berlin.de/IOPI/GPC/query.htm.

Makhnovskii I. K. (1955) Pests of protecting forest plantations of Central Asia and their control. Tashkent, State Editing Office of Uzbek SSR, 195 p. (in Russian).

Marikovskii P. I. (1955) Revue of insects damaging saxauls. In: Proceedings of the Institute of Zoology and Parasitology. Frunze. Edition of the Academy of Sciences of Kyrgyz SSR, v 3, p. 111-134 (in Russian).

Maslov A. D. (1988) Guide on Forest Protection against Pests and Diseases. Moscow, "Agropromizdat", 414 p. (in Russian).

Pavlovskii E. N. & Shtakelberg A. A.(Eds.). (1955) Forest pests. Guide. Moscow-Leningrad, Edition of Academy of sciences of the USSR, V 2, p. 422-1097 (in Russian).

Plavilshchikov N. N. (1940) *Turcmenigena varentzovi* Melg. In: Fauna of the USSR; Coleopterous insects, v. XXII; Long horn beetles, Part 2, p. 54-56 (in Russian).