

**Institute of Zoology, Chinese Academy of Science. 1986.** *Agrilus marcopoli* Obenberger. Agriculture Insects of China (part I), p. 445. China Agriculture Press, Beijing, China.

The adult is 8.5-13.5 mm long; metallic, coppery-green in color; head is flat with a shield-like vertex; compound eyes are kidney-shaped, dark coppery colored; prothorax rectangular, slightly wider than the head, but as wide as the front edge of the elytra; the front edge of the elytra has a horizontal, punctuated ridge; the back edge of the elytra bluntly rounded. Eggs are cream-colored, oblate, becoming yellowish brown before hatching. Larvae are milk-white in color, flat and band-like; head is small, brown in color, retracted inside the prothorax so that only the mouthparts appear visible; prothorax is swollen whereas the meso- and metathorax are narrow. A pair of spiracles is found on the mesothorax and on each of the first 8 abdominal segments. There are 10 segments in the abdomen with the last segment contains a pair of brown pincer-like appendages (urogomphi). Pupae are exarate, milk-white in color, becoming coppery-green later.

In Shenyang, in Liaoning province, *A. marcopoli* has one generation a year and overwinters as larvae between phloem and sapwood or in galleries at the outer layer of sapwood. Larvae start to feed in early April the next year. Pupation occurs in late April and pupal stage ends in mid-June. Adults begin to emerge in mid-May and can be seen until early July, and eggs are found from early June to mid- and late July. Larvae bore into the trunk after they hatch in mid-June and reach the xylem in mid-October when they start to overwinter. After eclosion, adults chew on sapwood and bark before they emerge from the exit holes. The newly emerged adults climb to the upper crown and feed on tender leaves. Adults consume the biggest portion of leaves within 5 d after emergence. Adults are relatively good fliers, often active between 6:00 to 17:00 hours on branches and leaf surfaces during the day, and perch motionlessly on crown leaf surfaces at night. Flight starts 3-4 h after initial feeding. Adults start to mate between 9:00-15:00 hours, 7-10 d after emergence and mate up to 3 times maximum in their life. Mating lasts 20-90 min. (average 60 min.). Oviposition begins 7-9 d after the initial mating. Most eggs are laid between 14:00 to 17:00 hours on the southwest side of the exposed trunks and branches. The position of the egg site is usually correlated with the direction of the sunshine. A female can lay 1-23 eggs each time, but most likely one egg at a time. Each female can produce 68-90 (average 76.6) eggs in her lifetime. The average longevity for females and males is 21.6 and 13 d, respectively. Adults can “play dead” (thanatosis). *A. marcopoli* often attacks single trees and trees on the edges of the forest, causing severe damage to trunks below 2 m. Damage to branches and forests with a dense canopy is usually light. Host: *Fraxinus chinensis* subsp. *rhychophylla*. Distribution: Liaoning, Jilin, Heilongjiang, Inner Mongolia, Hebei, and Shandong; Korea, Mongolia, and Japan.

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