

## The Absence of Codling Moth, *Cydia pomonella* L. in Korea

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코드링 나방의 한국 分布誤記에 대한 訂正

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### Abstract

According to distribution maps of pests published by the Commonwealth Institute of Entomology, in 1969, codling moth occurs in Korea. However, it has never been found in Korea, and it is thought this record is due to a misunderstanding of the literature.

The codling moth, *Cydia pomonella* L., is distributed in most areas of world and a well-known and significant pest of fruits, especially apple. The original range of codling moth was probably limited to Southern Europe. With the rapid development of the horticultural industry, distribution of the codling moth has increasingly spreaded over the world during the last century.

The economic importance of this species has also increased in most fruit growing areas. Codling moth incidence is a key factor affecting the apple trade of many countries.

Recently, the writers received many letters from other countries inquiring on distribution of the codling moth in Korea. There was confusion because the distribution maps of pests incorrectly shows the Korean peninsula colonized by this species. On map No. 9, Series A, a part of Manchuria, Korea, and Ussuri regions were depicted as locations with codling moth.

Distribution in Korea of the map was cited from Balachowsky, "Entomologie appliquee a Agriculture," p. 663, 1966 and Danielevskii & Kuznetsov, "Laspeyresinii (Tortricidae)" p. 84, 1968.

Balachowsky states the codling moth does not occur in Far East area except Korea, Japan and Sakhalin, and showed these countries as locations with codling moth on his map. However, it seems the records may have been based on a misunderstanding of the localities or an accidental information.

Korean citations are also based on Fig. 46 on p.84, Danielevskii & Kuznetsov, but there are no detailed records of localities. In the original figure the distribution of codling moth was marked with a single shading. South Korea was marked with a little different shading. These shadings have been confused and misinterpreted by readers, for they are quite different in their meaning. The later shading is used only to differentiate South Korea from North Korea. It is also

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mentioned on p. 260 of the same reference that the codling moth has not been found in Korea, Japan and China.

Shel'deshova has shown a similar figure in his paper in Russian, on "Ecological factors determining distribution of codling moth in the Northern and Southern hemisphere(1967)." The translation of this paper in English appeared in Ent. Rev. 46, no. 3 in 1968. He also states that the codling moth does not occur in Korea, Japan and China.

Dr. J.D. Bradley, Commonwealth Institute of Entomology, answered our query in December, 1975: "We have no confirmation of the record of *Cydia pomonella* L. from Korea, I think we investigated the record of *pomonella* from Japan when you (Mr. K.T. Park) were here and could not get confirmation. It seems the species does not occur in either Korea or Japan."

The writers' experience in surveys for crop pests in Korea since 1972 indicate the codling moth does not occur in Korea. It has not been collected in several sampling methods conducted throughout the country, or in codling moth pheromone trials in 1975.

The codling moth has followed cultivation of apple in Siberia, and does serious damage in most localities (Shel'deshova, 1967). The absence of the codling moth in some temperate latitudes of East Asia even though they are extensive fruit growing area, cannot be explained by climatic and ecological factors but by historical and economic reasons. Many of these areas are ancient centers of intensive fruit cultivation, and until recently there was no regular importation of fruit from other continents(Shel'deshova, 1967). The present day range of this species has been extended to Khabarovsk, Southern Primor'ye and Vladivostock in Far East (Danilevski & Kuznetsov, 1968). Shel'deshova maintains that discovery of the codling moth at Khabarovsk demonstrates it is capable of adopting itself to the very cold winters in the far eastern regions of the USSR. Its acclimation is even more probable in the milder climates of fruit-growing regions in China, the Korean peninsula and Japan. Therefore the penetration of this pest further into East Asia is to be expected.

The writers hope this report will rectify the misunderstanding on the distribution of codling moth,

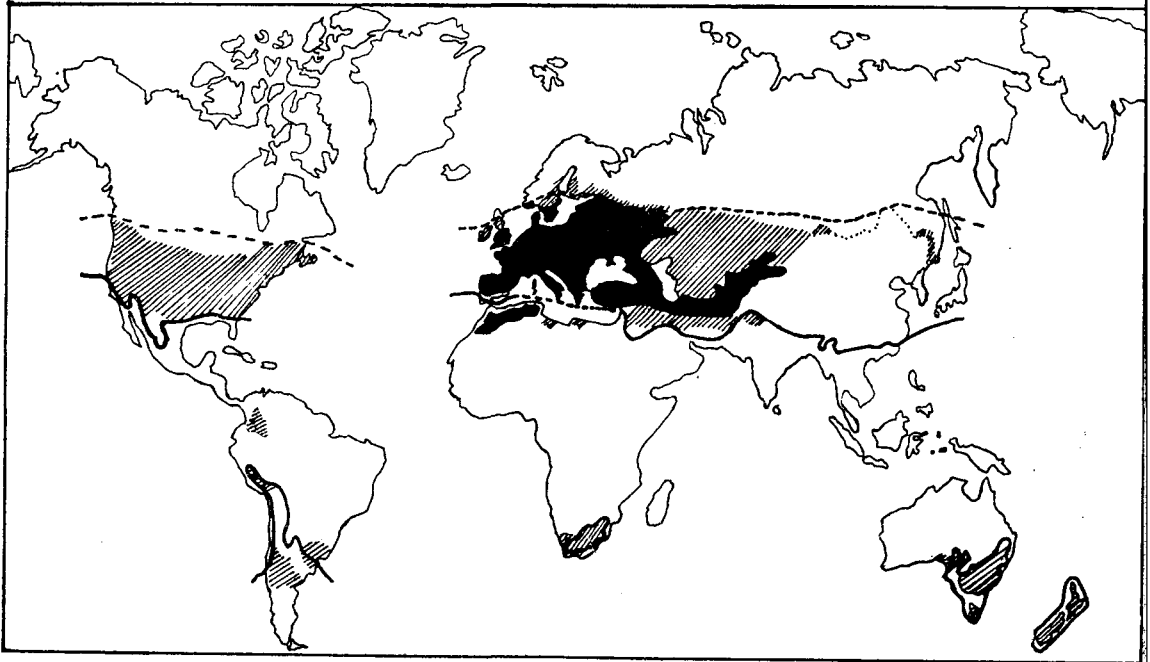


Fig. 1. Distribution of the codling moth, *Cydia pomonella* L.

▨ — present distribution

■ — probable original range based on the distribution of apples.

*Cydia pomonella* L. in Korea. Moreover, the writers emphasize that codling moth surveillance and quarantine is necessary to prevent introduction into non-colonized areas of Far East Asia.

### References

1. Balachowsky, A.S. 1966. Entologie appliquee a Agriculture, Vol. 2. Lepidoptera, p.662—663.
2. Bradley, J.D. 1967. Some Lepidoptera of economic importance in Commonwealth countries.
3. Shel'deshova, G.G. 1968. Ecological factors determining distribution of the codling moth *Laspeyresia pomonella* L. (Lep: Tort.) in the Northern and Southern Hemispheres.
4. Danlevskii & Kuznetsov. 1968. Tortricidae(Lasdeyresiini) p.84, p.558—565.
5. Distribution maps of pests, Series A, Map No. 9 19 69. by the Commonwealth Institute of Entomology.

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