

Check List of the Tribe Tortricini (Lepidoptera: Tortricidae) in Northeast China, with Two Newly Recorded Species from China

Bong-Kyu Byun* and Shanchun Yan¹

Division of Specimens & Genetic Resources, Korea National Arboretum

¹College of Forest Resources and Environment, Northeast Forestry University, Harbin 150040, Heilongjiang, China

中國東北産 무늬잎말이나방族(나비목: 잎말이나방科)의 目錄 및 中國未記錄 2種 報告

邊鳳奎*, 嚴善春¹

國立樹木園 生物標本科, ¹中國 東北林業大學校 山林資源與環境大學

ABSTRACT : Thirty-six species of the tribe Tortricini (Tortricidae) in Northeast China are listed with available information. Among them, two species, *Acleris hastina* (Linnaeus) and *A. lacordairana* (Duponchel), are reported for the first time from China. *Croesia crataegi* (Kuznetsov) is newly recorded from Northeast China. Available information, including host plant, distributional range, and biological record, are enumerated.

KEY WORDS : Systematics, New record, *Acleris*, *Croesia*

초 록 : 본 연구는 한국과 인접해 있는 중국동북지역에 분포하는 무늬잎말이나방족의 분류학적 연구결과로, 현재까지 보고된 종들과 새롭게 추가되는 중국미기록 2종(*Acleris hastina* (Linnaeus), *A. lacordairana* (Duponchel)) 및 중국동북지역 미기록 1종(*Croesia crataegi* (Kuznetsov))을 포함하여 총 4속 36종으로 정리되었다. 정리된 종별 정보는 동물이명, 기록문헌, 기주식물, 분포정보 등 필수정보들도 종합작성되었다.

검색어 : 분류, 미기록종, *Acleris*속, *Croesia*속

We studied the fauna of the tribe Tortricini in Northeast China (= NE China), which is close to the northern part of Korea and also in the aspect of zoogeography. Although most investigations were done for the China-wide Tortricini fauna, there has been no study for the NE China (Liaoning, Jilin, Heilongjiang, NE Neimengu) to date. Due to the absence of local faunistic data in China, it is difficult to understand the detail localities of specific distribution, especially on the localities within the provinces. In the present study, we col-

lected the materials in NE China and examined the specimens which are preserved in Northeast Forestry University, Harbin, China, and made a list of the tribe Tortricini for NE China. Detailed localities of the species are included based the Chinese publications on the taxa.

The first record of the tribe Tortricini in NE China is *Acleris submaccana* (Filipjev) by Liu *et al.* (1974), who studied the forest insect pests in Dailing (= Tailing) area, Province Heilongjiang. Liu and Bai (1977) listed thir-

*Corresponding author. E-mail: bkbyun@foa.go.kr

teen species as them to be distributed in NE China. Later, Liu and Bai (1987, 1988, 1993) described three new species in the tribe: *Croesia rosella* from Heilongjiang, *Paratorna pterofulva* from Mt. Changbaishan, Jilin, and *Acleris micropterana* from Yichun, Heilongjiang respectively. Consequently thirty three species have been recorded to be distributed in NE China (Liu & Li, 2002). In the present study, two species, *Acleris hastina* (Linnaeus) and *A. lacordairana* (Duponchel), are reported for the first time from China, and a species, *Croesia crataegi* (Kuznetsov) is newly recorded from NE China. This study was aimed to clarify the fauna of the tribe Tortricini in NE China especially about the detailed localities, which has not been studied to date.

All the known species are listed with their known host plants, distributional ranges, and some available biological informations. When available, material data for the species are listed. All the materials examined are now preserved in the Entomological Collection, Northeast Forestry University, Harbin, China.

Abbreviations used in this study are as follows:

Chinese Provinces : HL: Heilongjiang, JL: Jilin, LN: Liaoning, HEB: Hebei, SD: Shandong, JS: Jiangsu, SX: Shanxi, HEN: Henan, AH: Anhui, ZJ: Zhejiang, SAX: Shaanxi HUB: Hubei, JX: Jiangxi, FJ: Fujian, NX: Ningxia, GS: Gansu, QH: Qinghai, SC: Sichuan, HUN: Hunan, GZ: Guizhou, GX: Guangxi, GD: Guangdong, NM: Neimonggu (= Inner Mongolia), XJ: Xinjiang, TB: TIBET, YN: Yunnan, HAN: Hainan, SH: Shanghai, BJ: Beijing, NJ: Nanjing.

Korean localities: S: South, J: Island Jeju, N: North.

Tribe Tortricini

Key to genera of the tribe Tortricini in China

1. All veins of forewing separated 2
 - Veins R₄ and R₅ of forewing stalked, or M₃ and Cua₁ stalked 3
2. Veins M₃ and Cua₁ of hindwing stalked *Acleris*, *Croesia*
 - Veins M₃ and Cua₁ of hindwing approximated at base *Tortrix*
3. Veins R_s and M₁ of hindwing stalked *Paracroesia*
 - Veins M₃ and Cua₁ of hindwing stalked *Spatalistis*

1. *Acleris affinatana* (Snellen, 1833)

Teras affinatana Snellen, 1833, Tijds. Ent. 26: 185. TL: China (Chingan).

Oxygrapha pryerana Walsingham, 1900, Ann. Mag. Nat. Hist. (7)5: 376.

Acleris affinitana: Liu & Li, 2002, Fauna Sinica, (Insecta) 27: 93.

Wingspan 18 mm (Liu & Li, 2002).

Known locality. HL; SD; SC (Liu & Li, 2002).

Distribution. Korea (S, N), China, Japan, Russia (Siberia, Amur).

Host plant. *Quercus dentata* T., *Q. serrata* T., and *Q. acutissima* Carruth. (Fagaceae) (Yasuda, 1975; Park, 1983b). *Quercus acutissima* Carr., *Quercus dentata* Thunb. (Fagaceae), *Zelkova schneideriana* Hand-Mazz. (Ulmaceae) (Liu & Li, 2002)

2. *Acleris alnivora* Oku, 1956

Acleris alnivora Oku, 1956, Insecta Matsumurana, 20: 115, figs. 6, 7. TL: Japan (Hokkaido); Liu & Bai, 1977, Econ. Ins. Faun. China, 11: 32; Liu, 1983, Icon. Heter. Sin., 1: 28; Liu & Li, 2002, Fauna Sinica, (Insecta) 27: 94.

Wingspan 22 mm (Liu & Li, 2002).

Known locality. HL: Dailing (Liu & Bai, 1977; Liu, 1983; Liu & Li, 2002).

Distribution. China, Japan.

Host plant. *Alnus japonica* var. *rufa* Nak. (Betulaceae), *Ulmus propinqua* K. (Ulmaceae) (Liu, 1983).

3. *Acleris amurensis* Caradja, 1928

Acalla amurensis Caradja, 1928, Dt. ent. Z. Iris, 42: 293. TL: Russia (Ussuri).

Peronea roscidana Filipjev, 1930, Ann. Zool. Mus. Acad. Sci. USSR, 30 (1929), fig. 5.

Acleris amurensis: Liu & Li, 2002, Fauna Sinica, (Insecta) 27: 94.

Wingspan 25-30 mm (Liu & Li, 2002).

Known locality. HL (Liu & Li, 2002).

Distribution. Korea (S, N), China, Japan, Russia, Europe.

Host plant. *Populus tremula* L. (Salicaceae) (Liu & Li, 2002).

4. *Acleris cristana* (Schiffermüller & Denis, 1776)

Tortrix cristana Schiffermüller et Denis, 1776, Syst. Verz. Schm. Wien. Geg., p. 129. TL: Australia (Vienna).

Pyrallis rossiana Fabricius, 1794, Ent. Syst., 3(2): 259.

Pyrallis ephippiana Fabricius, 1798, Suppl. Ent. Syst., p. 479.

Peronea lefeburiana Duponchel, 1835, Hist. Nat. Lep. France, 9: 163, t. 244, fig. 6.

Acleris cristana: Liu & Bai, 1977, Econ. Ins. Faun. China, 11: 32; Liu, 1983, Icon. Heter. Sin., 1: 28; Liu & Li, 2002, Fauna Sinica, (Insecta) 27: 96.

Wingspan 22 mm (Liu & Li, 2002).

Known locality. HL; JL (Liu & Bai, 1977; Liu, 1983; Liu & Li, 2002).

Distribution. Korea (S, N), China, Taiwan, Japan, Russia, Europe.

Host plant. *Crataegus cuneata* S. & Z., *Malus pumila* M., *Prunus salicina* Lindley (Rosaceae), *Zelkova serrata* Makino (Ulmaceae) (Yasuda, 1975), *Carpinus betulus* L. (Betulaceae), *Ulmus campestris* L. (Ulmaceae), *Rosa* sp., *Prunus spinosa* Linn. (Rosaceae) (Razowski, 1966), *Carpinus* sp. (Betulaceae), *Crataegus pinnatifida* B., *Rosa* sp. (Rosaceae), *Ulmus* sp., *Zelkova schneideriana* Hand-Mazz. (Ulmaceae) (Liu, 1983; Liu & Li, 2002).

5. *Acleris delicatana* (Christoph, 1881)

Teras delicatana Christoph, 1881, Bull. Soc. Imp. Nat. Moscou, 56 (1): 60. TL: Russia (Vladivostok).

Acleris delicatana: Liu & Bai, 1977, Econ. Ins. Faun. China, 11: 33; Liu, 1983, Icon. Heter. Sin., 1: 28; Liu & Li, 2002, Fauna Sinica, (Insecta) 27: 96.

Wingspan 17 mm (Liu & Li, 2002).

Known locality. HL (Liu & Bai, 1977; Liu, 1983; Liu & Li, 2002).

Distribution. China, Japan, Russia (Siberia).

Host plant. *Carpinus* sp., *Corylus sieboldiana* var. *mandshurica* (Max.) C. K. Schneid (Betulaceae), *Quercus* sp. (Fagaceae) (Liu, 1983; Liu & Li, 2002).

6. *Acleris emargana* (Fabricius, 1775)

Pyrallis emargana Fabricius, 1775, Syst. Ent.: 651. TL: England.

Teras candana Fishcher von Röslerstamm, 1839, Abb. Bericht. Ergänz. Schm. Kunde, t. 55, fig. 1d.

Acleris emargana Fabricius: Liu & Bai, 1977, Econ. Ins.

Faun. China, 11: 33; Liu, 1983, Icon. Heter. Sin., 1: 28; Liu & Li, 2002, Fauna Sinica, (Insecta) 27: 97.

Wingspan 20-23 mm (Liu & Li, 2002).

Known locality. HL: Dailing, Harbin, Mt. Maoershan; JL: Mt. Changbai; BJ; HEB: Changli; QH: Xining (Liu & Bai 1977, Liu 1983, Liu & Li 2002).

Distribution. Korea (N), China, Japan, Russia (Siberia), Europe, America (North).

Host plant. *Salix* sp., *Populus* sp. (Salicaceae), and *Betula* sp. (Betulaceae) (Razowski, 1966). *Betula* sp. (Betulaceae), *Populus* sp., *Salix koreensis* A. (Salicaceae) (Liu, 1983; Liu & Li, 2002).

Remarks. Moths fly from May to July, in Heilongjiang, China. Univoltine (Liu & Li, 2002).

7. *Acleris expressa* (Filipjev, 1931)

Peronea expressa Filipjev, 1931, Ann. Mus. zool. Acad. Sci. URSS, 31 (1930): 517, pl. 24, figs. 3-3b, pl. 31, fig. 2. TL: Russia (East Siberia).

Acleris expressa: Liu & Li, 2002, Fauna Sinica, (Insecta) 27: 99.

Wingspan 19-22 mm (Liu & Li, 2002).

Known locality. HL (Liu & Li, 2002).

Distribution. Korea (S), China, Japan, Russia (Amur).

Host plant. *Fraxinus mandshurica* R. (Oleaceae) (Liu & Li, 2002).

8. *Acleris ferrugana* (Schifferüller & Denis, 1776)

Phalaena Tortrix tripunctana Schiffermüller & Denis, 1776, Syst. Verz. Schmett. Wien. Geg.: 128. TL: Europe.

Tortrix rufana Hübner, 1796-1799, Samml. Eur. Schmett., Tortr., pl. 20, fig. 127.

Tortrix lithargyrana Herrich-Schäffer, 1847, Tortr., pl. 4, fig. 23.

Peronea fissurana Pierce & Metcalfe, 1922, Genit. Brit. Tortr., 23, pl. 10.

Acleris ferrugana Obraztsov, 1956, Tijdschr. Ent., 99: 133; Liu & Li, 2002, Fauna Sinica, (Insecta) 27: 100.

Wingspan 18 mm (Liu & Li, 2002).

Known locality. HL (Liu & Li, 2002).

Distribution. China, Europe.

Host plant. *Alnus* sp. (Betulaceae), *Populus* sp. (Salicaceae), *Prunus* sp., *Pyrus* sp., *Rubus* sp. (Rosaceae)

(Liu & Li, 2002)

9. *Acleris filipjevi* Obraztsov, 1956

Acleris filipjevi Obraztsov, 1956, Tjld. Ent. 99: 147 TL: Russia (Ussuri: Suifun); Liu & Li, 2002, Fauna Sinica, (Insecta) 27: 100.

Peronea grisea Filipjev, 1931, Ann. Mus. Zool. Acad. Sci. URSS 31: 519.

Wingspan 21-24 mm (Liu & Li, 2002).

Known locality. HL (Liu & Li, 2002).

Distribution. Korea (S), China, Japan, Russia (Siberia, Amur, Ussuri).

Remarks. Bivoltine. Moths appear in July and September to October (Liu & Li, 2002).

10. *Acleris fimbriana* (Thunberg & Becklin, 1791)

Acleris fimbriana Thunberg & Becklin, 1791, Diss. Ent. 2: 44 (*Tortrix*). TL: Sweden.

Peronea croceopla Meyrick, 1922, Exot. Microl. 2: 500.

Acalla albistrigana Petersen, 1924, Lep. Estl.: 418.

Peronea tephromorpha Meyrick, 1930, Exot. Microl. 3: 613.

Wingspan 17-21 mm (Liu & Li, 2002).

Known locality. Northeast (Liu, 1983; Liu & Li, 2002).

Distribution. Korea (S), China, Russia, Europe.

Host plant. *Malus pumila* M. and *Prunus persica* (L.) Batsch (Rosaceae) (Park, 1983).

*11. *Acleris hastina* (Linnaeus, 1758) (Figs. 1, 4)

Phalaena Acleris hastina Linnaeus, 1758, Syst. Nat. (Edn 10)1: 532. TL: Canada (Hudson's Bay).

Acleris hastina: Hannemann, 1961, Die Tierwelt Dtl. 48: 60, textfig. 101 (♂-genitalia), pl. 4, 6, figs. 2, 6-7, 15; Bentinck & Diakonoff, 1968, Monografieen ned. ent. Vereen 3: 65, pl. 9, fig. 69, pl. 46, fig. 71 (♂♀-genitalia); Bradely, Tremewan & Smith, 1973, Br. Tortricoid Moths (Cochyliidae and Tortricidae: Tortricinae): 200, pl. 43, figs. 1-22; Kuznetsov, 1978, Opr. ed. Faune SSSR 117: 405, pl. 360, fig. 2; Razowski, 1966, World Fauna Tortricini: 341, pl. 22, figs. 3-8, figs. 485-487 (♂♀-genitalia); Razowski, 1984, Microlepid. Palaearc. 6: 239, pl. 12, fig. 95 (♂♀-genitalia); Kawabe et Ijima, 1985, Japan Heterocer-

ists' J. 130: 69, figs. A, C-E,

Wingspan 22 mm in female (n = 1).

Female genitalia (fig. 4). Sterigma well clerotized with large lateral projection. Antrum short, slightly protruded at middle. Ductus bursae long. Corpus bursae semi-ovate with a stellate signum.

Material examined. [HL] 1 ♀, Laoshan, Mt. Maershan, 21 July 2002, Byun BK & CD Li. -coll. NEFU.

Distribution. China (new record), N America, Russia.

Host plant. *Salix* sp., *Populus* sp. (Salicaceae) (Kawabe et Ijima, 1985).

Remarks. The species is reported for the first time from China in this study.

12. *Acleris hispidana* (Christoph, 1881)

Teras hispidana Christoph, 1881, Bull. Soc. Imp. Nat. Moscou, 56: 61. TL: Russia (Amur).

Acleris hispidana: Liu & Li, 2002, Fauna Sinica, (Insecta) 27: 103.

Wingspan 21-26 mm (Liu & Li, 2002).

Known locality. HL (Liu & Li, 2002).

Distribution. Korea (S), China, Japan, Russia (Vladivostok, Amur).

Host plant. *Quercus mongolica* F. (Fagaceae) (Razowski, 1966; Liu & Li, 2002).

Remarks. The moths appear in May and September-October (Liu & Li, 2002).

13. *Acleris issikii* Oku, 1957

Acleris issikii Oku, 1957, Ins. Matsumurana, 21: 74, figs. 1: a, b TL: Japan; Liu & Bai, 1977, Econ. Ins. Faun. China, 11: 34; Liu, 1983, Icon. Heter. Sin., 1: 29; Liu & Li, 2002, Fauna Sinica, (Insecta) 27: 104.

Wingspan 16-21 mm in both sexes (n = 6).

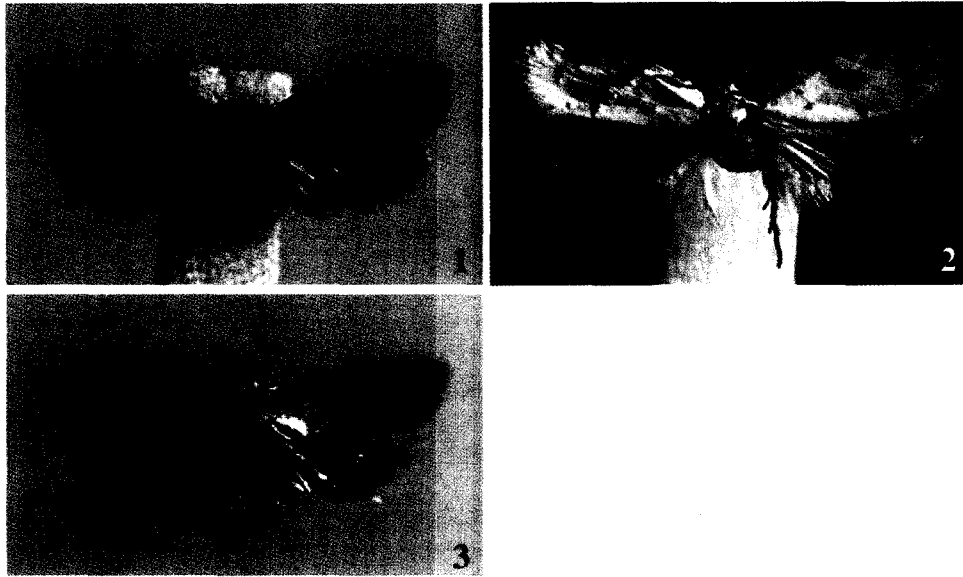
Material examined. [HL] 2 ♂♂, Laoyeling, Early July 1995 (SC Yan); 1 ♀, Laoyeling, 4 July 1996 (SC Yan); 1 ♀, Liangshui, 28 June 1996 (SC Yan); 2 ♂♂, Jianlagou, 30 June 1998 (SC Yan) -coll. NEFU.

Known locality. HL; QH (Liu & Bai, 1977; Liu, 1983; Liu & Li, 2002).

Distribution. Korea (S, N), China, Japan, Russia (Amur, Ussuri, Vladivostok).

Host plant. *Salix integra* Y., *Populus nigra* L., *P. sieboldii* M. (Salicaceae) (Yasuda, 1975; Park, 1983). *Populus* sp. (Salicaceae) (Liu, 1983; Liu & Li, 2002).

Remarks. Two generations a year in China. The moths



Figs. 1-3. Adults: 1, *Acleris hastina* (Linnaeus); 2, *A. lacordairana* (Duponchel); 3, *Croesia crataegi* (Kuznetsov).

appear in June-July and September-October (Liu & Li, 2002).

14. *Acleris kodamai* Yasuda, 1965

Acleris kodamai Yasuda, 1965, Bull. Univ. Osaka Pref. (B)17: 15. TL: Japan (Iwawakisan); Liu & Li, 2002, Fauna Sinica, (Insecta) 27: 104.

Wingspan 24 mm (Liu & Li, 2002).

Known locality. LN (Liu & Li, 2002).

Distribution. Korea (S), China, Japan.

Host plant. *Pinus koraiensis* S. et Z. (Pinaceae) (Liu & Li, 2002).

Remarks. There is one generation per year. Moths fly in June to July (Liu & Li, 2002).

*15. *Acleris lacordairana* (Duponchel, 1836) (Figs. 2, 5)

Acleris lacordairana Duponchel, 1836, Hist. nat. Lepid. Papillons France, 9: 562, pl. 266, fig. 1 (*Peronea*). TL: Rußland.

Wingspan 16mm in female ($n=1$).

Female genitalia (fig. 5). Papillae anales narrow. Sterigma delicate with long narrow termination, rather sharpened apically; antrum strongly sclerotized, concaved medially. Ductus bursae very long, broad posteriorly. Corpus bursae round, with a small signum.

Material examined. [HL] 1 ♀, Mt. Maoershan, 14

September 1976-coll. NEFU.

Distribution. Korea (S, J, N), China (New record), Russia (Amur, Caucasus).

Host plant. *Ulmus* sp. (Ulmaceae) (Razowski, 1966).

Remarks. The species is reported for the first time from China in this study.

16. *Acleris laterana* (Fabricius, 1794)

Pyralis laterana Fabricius, 1794, Ent. Syst. 3(2): 264.

Tortix latifasciana Haworth, 1811, Lep. Btir.: 414. TL: England

Acleris schalleriana Hübner, 1825, Verz. Bek. Schm., p. 384.

Teras scabrana Herrich-Schäffer, 1851, Syst. Bearb. Schm. Eur., 4: 149.

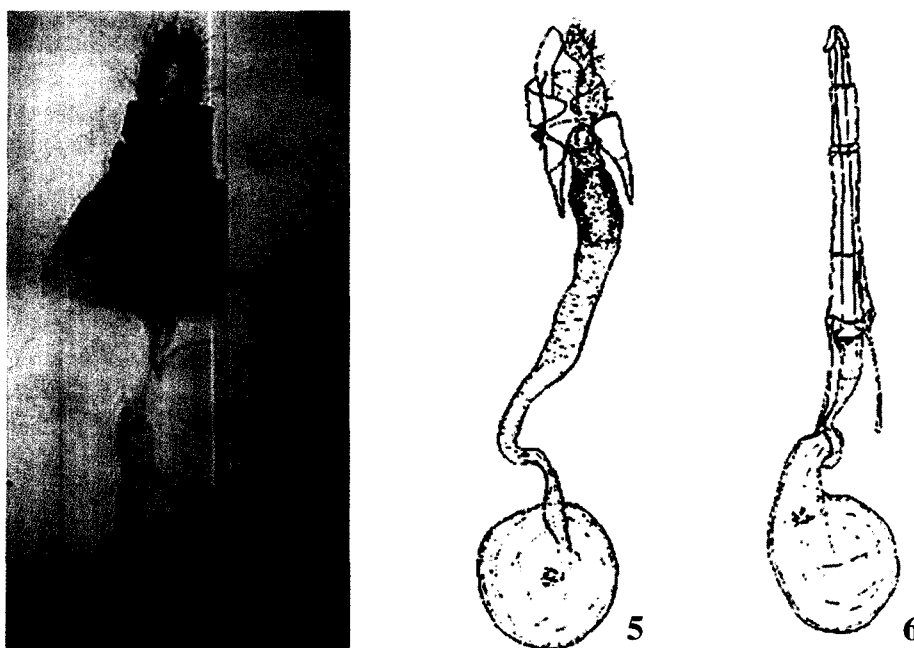
Acleris latifasciana: Liu & Bai, 1977, Econ. Ins. Faun. China, 11: 34; Liu, 1983, Icon. Heter. Sin., 1: 29; Liu & Li, 2002, Fauna Sinica, (Insecta) 27: 105.

Wingspan 18 mm (Liu & Li, 2002).

Known locality. HL; SD; ZJ (Liu & Bai, 1977; Liu, 1983; Liu & Li, 2002).

Distribution. Korea (S, J, N), China, Russia (Siberia), Japan, Europe.

Host plant. *Salix* spp., *Populus* sp. (Salicaceae) (Razowski, 1966) *Rhododendron simsii* Phlanch, *Vaccinium vitis-idaea* L. (Ericaceae), *Salix koreensis* A. (Salicaceae), *Spiraea* sp. (Rosaceae) (Liu, 1983; Liu & Li, 2002).



Figs. 4-6. Female genitalia: 4, *Acleris hastina* (Linnaeus); 5, *A. lacordairana* (Duponchel); 6, *Croesia crataegi* (Kuznetsov).

17. *Acleris longipalpana* (Snellen, 1883)

Teras longipalpana Snellen, 1883, Tijdschr. Ent. 26: 184. TL: Russia (Ussuri).

Acleris electrina Razowski and Yasuda, 1964, Tyo to Ga 14: 81.

Acleirs longipalpana: Liu & Li, 2002, Fauna Sinica, (Insecta) 27: 105.

Wingspan 21-24 mm (Liu & Li, 2002).

Known locality. HL (Liu & Li, 2002).

Distribution. Korea (S, J), China, Japan, Russia (Ussuri).

Remarks. It has one generation per year. Moths fly in July to August. (Liu & Li, 2002).

18. *Acleris micropterana* Liu & Bai, 1993

Acleris micropterana Liu & Bai, 1993, Sinozoologia, 10: 306. TL: China; Liu & Li, 2002, Fauna Sinica, (Insecta) 27: 107.

Wingspan 9.6-15.4 mm (Liu & Li, 2002).

Known locality. HL: Yichun; BJ (Liu & Bai, 1993; Liu & Li, 2002).

Distribution. China.

19. *Acleris nigriradix* (Filipjev, 1931)

Peronea nigriradix Filipjev, 1931, Ann. Mus. Zool.

Acad. Sci. URSS, 31: 513 TL: Russia (E. Siberia).

Acleris nigriradix: Liu & Li, 2002, Fauna Sinica, (Insecta) 27: 107.

Wingspan 19-22 mm (Liu & Li, 2002).

Known locality. HL (Liu & Li, 2002).

Distribution. Korea (S, J), China, Japan, Russia (East Siberia).

20. *Acleris perfundana* Kuznetsov, 1962

Acleris perfundana Kuznetsov, 1962, Trudy Zool. Inst. Leningr., 30: 337, fig. 1 TL: Russia (Amur); Liu & Bai, 1977, Econ. Ins. Faun. China, 11: 34; Liu, 1983, Icon. Heter. Sin., 1: 29; Liu & Li, 2002, Fauna Sinica, (Insecta) 27: 109.

Acleris niropunctana Kuznetsov, 1962, Trudy Zool. Inst. Acad. Nauk, 30: 338.

Wingspan 17 mm (n = 1).

Material examined. [HL] 1 ♀, Mt. Maershan, 1 July 1998 (SC Yan) -coll. NEFU.

Known locality. HL; JL (Liu & Bai, 1977; Liu, 1983; Liu & Li, 2002).

Distribution. Korea (S, N), China, Japan, Russian Far East (Amur, Primorye).

Host plant. *Quercus serrata* T. (Fagaceae) (Yasuda, 1975); *Quercus mongolica* F. (Fagaceae), *Zelkova serr-*

ata Makino (Ulmaceae) (Razowski, 1966). *Quercus* sp. (Fagaceae), *Zelkova schneideriana* Hand-Mazz. (Ulmaceae) (Liu, 1983; Liu & Li, 2002).

21. *Acleris proximana* (Caradja, 1927)

Acalla proximana Caradja, 1927, Acad. Rom. Mem. Sect. Stiint., 3: 392, 418 TL: China.

Acleris proximana: Liu & Li, 2002, Fauna Sinica, (Insecta) 27: 110.

Wingspan 15 mm (n = 1).

Material examined. [HL] 1 ♂, Laoshan, Mt. Maoershan, 20 July 2002-coll. NEFU.

Known locality. HL; NM; SAX; HEB; SD; HUB; SC (Liu & Li, 2002).

Distribution. Korea (S), China.

22. *Acleris shepherdana* (Stephens, 1852)

Peronea shepherdana Stephens, 1852, List. Spec. Brit. Anim. B. M., 10: 19, 98. TL: Europe.

Acleris shepherdana: Liu & Bai, 1977, Econ. Ins. Faun. China, 11: 34; Liu, 1983, Icon. Heter. Sin., 1: 29; Liu & Li, 2002, Fauna Sinica, (Insecta) 27: 111.

Wingspan 12-17 mm in both sexes (n = 3).

Material examined. [HL] 1 ♂, 1 ♀, Liangshui, Early August 1995(SC Yan); 1 ♀, Laoyeling, Early August 1995-coll. NEFU.

Known locality. HL: Dailing (Liu & Li, 2002).

Distribution. China, Japan, Russia, Europe.

Host plant. *Filipendula palmata* (Pall.) Maxim, *Sanguisaria officinalis* L., *Spiraea* sp. (Rosaceae) (Liu, 1983; Liu & Li, 2002).

Remarks. Adults emerge from May to mid-July, and overwinter in the larval stage in HL, China (Liu, 1983; Liu & Li, 2002).

23. *Acleris similis* (Filipjev, 1931)

Peronea similis Filipjev, 1931, Ann. Mus. Zool. Acad. Sci. URSS, 31 (1930): 515, figs. A. 2-3, pl. 23, figs. 2-2b, pl. 29 fig. 3. TL: Russia (Far East).

Acleris similis: Liu & Li, 2002, Fauna Sinica, (Insecta) 27: 112.

Wingspan 22 mm (Liu & Li, 2002).

Known locality. HL (Liu & Li, 2002).

Distribution. China, Japan, Russia.

24. *Acleris strigifera* (Filipjev, 1931)

Peronea strigifera Filipjev, 1931, Ann. Mus. Zool. Acad. Sci. URSS, 31 (1930): 518, figs. B 1-3, pl. 26, figs. 2-2b, pl. 32, fig. 2. TL: Russia (Ussuri).

Acleris strigifera: Liu & Li, 2002, Fauna Sinica, (Insecta) 27: 113.

Wingspan 19-22 mm (Liu & Li, 2002).

Known locality. HL (Liu & Li, 2002).

Distribution. China, Japan, Russia.

Remarks. Adults emerge in September and begin to overwinter in China. They reappear in May of the next year (Liu & Li, 2002).

25. *Acleris submaccana* (Filipjev, 1962)

Peronea submaccana Filipjev, 1962, Trudy Zool. Inst., Leningr., 30: 379, fig. 16. TL: Russia (Siberia).

Acleris simplex Razowski & Yasuda, 1964, Tyo to Ga, 14: 80, figs. 1-3, 23-25.

Acleris submaccana: Liu & Bai, 1974, Acta Entomol. Sinica, 17(2): 170; Liu & Bai, 1977, Econ. Ins. Faun. China, 11: 35; Liu, 1983, Icon. Heter. Sin., 1: 29; Liu & Li, 2002, Fauna Sinica, (Insecta) 27: 113.

Wingspan 22 mm (Liu & Li, 2002).

Known locality. HL: Yichun (Liu & Bai, 1974; Liu & Bai, 1977; Liu, 1983; Liu & Li, 2002).

Distribution. Korea (S), China, Taiwan, Japan, Russia (Baikal), Central Asia.

Host plant. *Betula platyphylla* S., *Alnus maximowiczii* C. (Betulaceae) (Yasuda, 1975). *Alnus japonica* var. *rufa* Nak., *Betula* sp. (Betulaceae), *Duchesnea indica* (Rosaceae), *Populus* sp., *Salix koreensis* A. (Salicaceae), *Rhododendron simsii* Phlanch (Ericaceae), *Ribes* sp. (Saxifragaceae), *Vaccinium vitis-idaea* L. (Ericaceae), *Viburnum dilatatum* Thunb. (Caprifoliaceae) (Liu, 1983; Liu & Li, 2002).

Remarks. Larvae may be found in the mid-June. Adults emerge in early August in Yichun city, Heilongjiang, China (Liu, 1983).

26. *Acleris ulmicola* (Meyrick, 1930)

Acleris ulmicola Meyrick, 1930, Exot. Microl., 3: 612. TL: China (Manchuria); Liu & Bai, 1977, Econ. Ins. Faun. China, 11: 35; Liu, 1983, Icon. Heter. Sin., 1: 29; Liu & Li, 2002, Fauna Sinica, (Insecta) 27: 114.

Wingspan 13-16 mm (n = 2).

Material examined. [HL] 1 ♂, Mt. Maoershan, 1

July 1998 (Yan SC); 1 ♀, Laoshan, Mt. Maoershan, 2 July 1998(SC Yan) -coll. NEFU.

Known locality. HL; JL; NM; NX; QH; HEB; SD; HEN (Liu & Bai, 1977; Liu, 1983; Liu & Li, 2002).

Distribution. Korea (S, J), China, Japan, Russia (Amur).

Host plant. *Ulmus davidiana* P., *Ulmus* sp., *U. propinqua* (Ulmaceae) (Razowski, 1966). *Ulmus davidiana*, *U. propinqua* (Ulmaceae) (Liu, 1983; Liu & Li, 2002).

27. *Croesia askoldana* (Christoph, 1881)

Tortrix askoldana Christoph, 1881, Bull. Soc. Imp. Nat. Moscou, 56 (1): 70. TL: Russia (Amur).

Croesia askoldana: Liu & Bai, 1977, Econ. Ins. Faun. China, 11: 30; Liu, 1983, Icon. Heter. Sin., 1: 34; Liu & Bai, 1987, Acta Entomologica Sinica, 30(3): 313; Liu & Li, 2002, Fauna Sinica, (Insecta) 27: 81.

Wingspan 14 mm (Liu & Li, 2002).

Known locality. HL: Dailing; JL: Mt. Changbaishan (Liu & Bai, 1977; Liu, 1983; Liu & Bai, 1987; Liu & Li, 2002).

Distribution. Korea (S, N), China, Japan, Russia (Amur, Ussuri, Siberia).

Host plant. *Abelia spathulata* S. & Z. (Caprifoliaceae), *Deutzia* sp. (Saxifragaceae) (Yasuda, 1975). *Deutzia scabra* Thunb. (Saxifragaceae) (Liu, 1983; Liu & Li, 2002).

28. *Croesia aurichalcana* (Bremer, 1864)

Lozotaenia aurichalcana Bremer, 1864, Mem. Acad. Imp. Nat. St. Petersb., (7)8, 1: 89, pl. 7: 22. TL: Russia (E. Siberia).

Tortrix auristellana Caradja, 1916, Dt. Ent. Z. Iris, 30: 47.

Tortrix issikii Matsumura, 1931, 6000 Illust. Insects Japan-Empire: 1076.

Croesia aurichalcana: Liu & Bai, 1977, Econ. Ins. Faun. China, 11: 30; Liu, 1983, Icon. Heter. Sin., 1: 34; Liu & Bai, 1987, Acta Entomologica Sinica, 30(3): 313; Liu & Li, 2002, Fauna Sinica, (Insecta) 27: 81.

Wingspan 20 mm (n = 8).

Material examined. [HL] 4 ♂♂, 4 ♀♀, Mt. Maoershan, 24-29 August 1974 - coll. NEFU.

Known locality. HL: Mt. Maoershan; JL (Liu & Bai,

1977; Liu, 1983; Liu & Bai 1987; Liu & Li, 2002).

Distribution. Korea (S), China, Japan, Russia (Amur).

Host plant. *Tilia japonica* S. (Tiliaceae) (Yasuda, 1975). *Tilia tuan* Szysz (Tiliaceae) (Liu, 1983; Liu, 1987; Liu & Li, 2002).

29. *Croesia bicolor* Kuznetsov, 1964

Croesia bicolor Kuznetsov, 1964, Ent. Obozr., 43: 879, figs. 11, 12. TL: Russia (Primorye); Liu & Bai, 1987, Acta Entomologica Sinica, 30(3): 313; Liu & Li, 2002, Fauna Sinica, (Insecta) 27: 82.

Wingspan 15-20 mm (Liu & Li, 2002).

Known locality. HL: Dailing, Wuying; SX: Mt. Mianshan; SC: Mt. Qingchengshan (Liu & Bai, 1987; Liu & Li, 2002).

Distribution. China, Russia.

Host plant. *Populus* spp. (Salicaceae), *Viburnum burjeaticum* Regel et Herder (Caprifoliaceae) (Liu, 1987), *Populus coreana* R. (Salicaceae) (Liu & Li, 2002).

*30. *Croesia crataegi* (Kuznetsov, 1964)

(Figs. 3, 6)

Croesia crataegi Kuznetsov, 1964, Entom. Obozr. 43: 877, figs. 8, 9 (*Ergasia*). TL: Russia (Primorye).

Wingspan 15 mm female (n = 1).

Female genitalia (fig. 6). Ovipositor very long. Apophyses posteriors fairly long; apophyses anteriores rather short. Sterigma reduced. Antrum strongly sclerotized, concaved posteriorly. Ductus bursae long, rather narrow. Corpus bursae large with a well developed signum.

Material examined. [HL] 1 ♀, Mt. Maoershan, 14 June 1998 (SC Yan) -coll. NEFU.

Known locality. HUN: Mt. Tianpingshan of Sangzhi County (Liu & Shen 1992, Liu & Li 2002).

Distribution. Korea (S), China (new record of NE China), Japan, Russia (Amur).

Remarks. The species has been reported only from the Province Hunan, China, and is newly recorded from Heilongjiang, NE China in this study.

31. *Croesia leechi* (Walsingham, 1900)

Tortrix leechi Walsingham, 1900, Ann. Mag. Nat. Hist., (7): 454. TL: Japan (Hokkaido).

Tortrix sumptuosana Caradja, 1939, Dt. Ent. Z. Iris, 53: 10.

Croesia leechi: Liu & Bai, 1987, Acta Entomologica

Sinica, 30(3): 315; Liu & Li, 2002, Fauna Sinica, (Insecta) 27: 85.

Wingspan 13-17 mm in male (n = 1).

Material examined. [HL] 1 ♂, Jixi Erdaohezi, 4 June 1996 (SC Yan)-coll. NEFU.

Known locality. HL: Jingpohu; LN; SX: Mt. Mianshan; SAX: Huanglong; HUB: Shennongjia; AH: Mt. Huangshan (Liu & Li, 2002).

Distribution. Korea (S, N), China, Japan, Russia (Ussuri, Vladivostok, East Siberia).

32. *Croesia rosella* Liu & Bai, 1987

Croesia rosella Liu & Bai, 1987, Acta Entomologica Sinica, 30(3): 316, pl. 1: II. TL: China; Liu & Li, 2002, Fauna Sinica, (Insecta) 27: 86.

Wingspan 13 mm (Liu & Li, 2002).

Known locality. HL: Wuying (Liu & Bai, 1987; Liu & Li, 2002).

Distribution. China.

Host plant. *Rosa acicularis* L. var. *taquetii* N. (Rosaceae) (Liu & Li, 2002).

33. *Croesia stibiana* (Snellen, 1883)

Tortrix stibiana Snellen, 1883, Tijdschr. Ent., 26: 189, t. 11, f. 4. TL: Russia (South Ussuri).

Croesia stibiana: Liu & Bai, 1977, Econ. Ins. Faun. China, 11: 31; Liu, 1983, Icon. Heter. Sin., 1: 34; Liu & Bai, 1987, Acta Entomologica Sinica, 30(3): 315; Liu & Li, 2002, Fauna Sinica, (Insecta) 27: 87.

Wingspan 16 mm in male (n = 1).

Material examined. [HL] 1 ♂, Laoyeling, Early August 1995 (SC Yan) -coll. NEFU.

Known locality. HL: Dailing; JL: Mt. Changbaishan; QH: Mengda; SC: Wolong (Liu & Bai, 1977; Liu, 1983; Liu & Bai, 1987; Liu & Li, 2002).

Distribution. China, Russia (Siberia), Japan.

34. *Paratorna catenulella* (Christoph, 1882)

Paratorna catenulella Christoph, 1882, Bull. Soc. Nat. Moscow, 57, 1. S. 19-21.

Paratorna seriepuncta Filipjev, 1962, Trudy Zool. Inst. Akad. Nauk. SSSR. 30: 373, figs. 8-10. TL: Russia (Primorye).

Paratorna seriepuncta: Liu & Bai, 1977, Econ. Ins. Faun. China, 11: 30; Liu, 1983, Icon. Heter. Sin., 1:

36; Liu & Bai, 1988, Sinozoologia, 6: 219; Liu & Li, 2002, Fauna Sinica, (Insecta) 27: 78.

Wingspan 16 mm (Liu & Li, 2002).

Known locality. HL; JL: Mt. Changbaishan; JS: Xingguo (Liu & Bai, 1977; Liu, 1983; Liu & Bai, 1988; Liu & Li, 2002).

Distribution. Korea (S), China, Japan, Russia.

35. *Paratorna pterofulva* Liu & Bai, 1988

Paratorna pterofulva Liu & Bai, 1988, Sinozoologia, 6: 219-224. TL: China; Liu & Li, 2002, Fauna Sinica, (Insecta) 27: 77.

Wingspan, 17 mm (Liu & Li, 2002).

Known locality. JL: Mt. Changbaishan; SC: Wolong (Liu & Bai, 1988; Liu & Li, 2002).

Distribution. China.

36. *Spatalistis egesta* Razowski, 1974

Spatalistis egesta Razowski, 1974, Acta Zool. Cracov. 19(8): 147, figs. 1-3. TL: Japan (Honshu).

Phalaena Tortrix bifasciana Hübner, 1787, Beitr. Gesch. Schm., 1(2): 16, t. 3, fig. M.

Spatalistis bifasciana: Liu & Bai, 1977, Econ. Ins. Faun. China, 11: 29; Liu, 1983, Icon. Heter. Sin., 1: 37; Liu & Li, 2002, Fauna Sinica, (Insecta) 27: 89.

Wingspan 12 mm (Liu & Li, 2002).

Known locality. HL: Jingpohu; SD; HUN: Mt. Tianpingshan (Liu & Bai, 1977; Liu, 1983; Liu & Li, 2002).

Distribution. Korea (S, N), China, Japan, and Europe.

Host plant. *Cornus* L. (Cornaceae), *Vaccinium* L. (Ericaceae) and *Rhamnus* L. (Rhamnaceae) in Europe (Hannemann, 1961). *Cerylus heterophyllus* (fruit) (Berberidaceae), *Cornus officinalis* S. et Z. (Cornaceae), *Vaccinium vitis-idaea* L. (Ericaceae) (Liu, 1983).

Remarks. The species has been known as *Spatalistis bifasciana* (Hübner) to date by previous authors, but recently Park and Razowski (1991) reidentified it as the present species.

Acknowledgment

We'd like to express our sincere thanks to Prof. Chengde Li, Northeast Forestry University, Harbin, China for

his careful guidance for the present study. We are also indebted to Prof. K.T. Park, Kangweon National University and Prof. Y.S. Bae, Incheon University, for their continuous advices. The first author wish to extend his heartfelt thanks to Dr. You-Mi Lee, Head of Systematic Biology Lab., Korea National Arboretum, for her help and encouragements for the study. This study was carried out under the financial support by KOSEF (Korea Science & Engineering Foundation) with the program of "Korea and China Young Scientist Exchange Program (2002-2003)".

Literature Cited

- Bentinck, G.A. and A.N. Diakonoff. 1968. De Nederlandse Bladrollers. Monogr. Nederl. ent. Ver. 3: 1~201, pls. 1~99.
- Bradley J.D., W.G. Tremewan and A. Smith. 1973. The British Tortricoid Moths, Cochyliidae and Tortricidae: Tortricinae. 1-251, pls. 1~47. The Ray Society. London.
- Bremer, O. 1864. Lepidoptera Ostibiriens, insbesondere des Amur-Landes, gesammelt von den Herrn G. Radde, R. Maak und P. Wuffius. Mem. Acad. Sci. St. Petersburg. 7(8), 1: 1~104, pls. 1~8.
- Byun, B.K. and Y.S. Bae. 2000. Three Species of the Tribe Tortricini (Lepidoptera, Tortricidae) New to Korea. *Ins. Koreana* 17(3): 175~180.
- Byun, B.K., Y.S. Bae and K.T. Park. 1998. Illustrated catalogue of Tortricidae in Korea (Lepidoptera). *Insects of Korea*, Vol. 2, 317pp.
- Caradja, A. 1927. Die Kleinfalter der Stotzner'schen Ausbeute, nebst Zutrage aus meiner Sammlung. *Memle Sect. Siiint. Acad. Rom.* (3)4: 361~428.
- Caradja, A. 1939. Materialien zu einer Microlepidopteren-Fauna des Mienshan Provinz Shansi, China. *Dt. ent. Z. Iris.* 53: 1~15.
- Christoph, H. 1881-1882. Neue Lepidoteren des Amurgebietes. *Bull. Soc. Imp. nat. Moscou* 55: 33-121(1881); 56: 1~80, 405~436(1882); 57: 5~47(1882).
- Dupochel, P.A. 1835-1836. *Historie Naturelle des Lepidopteres ou Papillions de France*, 9. Paris. 1835: 65~320, pls. 241~256, 1836: 321~627, pls. 257~266..
- Fabricius, J.C. 1775. *Systema Entomologiae, sistens insectorum classes, ordines, genera, adjectis, synonymis, locis, descriptionibus, observationibus*. VI. Glossata. [32]+832 S. Flensburgi et Lipsiae.
- Fabricius, J.C. 1794. *Entomologia Systematica emendata et aucta. Secundum classes ordines, genera, species adjectis synonymis, locis, obervationalibus, descriptionibus*. 3(2). 349 S. Hafniae.
- Filipjev, N.N. 1931. *Wissenschaftliche Ergebnisse der entomologischen Expeditionen des Zoologischen Museums in der Ussuri-Lands, III. Ubersicut der ostibirischen Arten der Gattung Peronea Curt.* *Annu. Mus. Zool. Acad. Sci. URSS* 31(1930): 497~528, tt. 23~32.
- Filipjev, N.N. 1962. Lepidpteros fauna. Tortricinae (Lepidoptera, Tortricidae) from USSR. *Trudy zool. Inst. Leningr.* 30: 369~381.
- Fischer von Roeslerstamm, JE. [1834-1843]. *Abbildungen zur Berichtigung und Erganzung der Schmetterlingskunde besonders der Microlepidoptereologie, als Supplement zu Treitschke's und Huebner's europaeischen Schmetterlingen. mit erlaetern-dem Text.* Leipzig. 300S, 100 Taf.
- Hannemann, H.J. 1961. Kleinschmetterlinge oder Microlepidoptera I. Die Wickler (s.str.) (Tortricidae) (48 Teil). [In] F. Dahl (Ed.). *Tier. Deut.* 48: 1~233. 22 pls.
- Haworth, A.H. [1811]. *Lepidoptera Britannica*. part 3: 377~512, London.
- Herrich-Schaffer, G.A.W. [1847-1855]. *Systematische Bearbeitung der Schmetterlinge von Europa, zugleich als Text, Revision und Supplement zu Jacob Hubner's Sammlung europaischer Schmetterlinge*. *Index universalis specierum & generum*. Regensburg. Vol. 5, 1-394+52 Index, 124+7+1 Taf.
- Hübner, J. 1786-1790. *Beitrage zur Geschichte der Schmettlerlinge*. 2 Vols, Augsburg.
- Hübner, J. [1796-1799]. *Der Sammlung eurpaischer Schmetterlinge*, Augsburg. 7, Part 7: Tortrices, pls. 1~29.
- Hübner, J. 1825-1826. *Systematisch-alphabetisches Verzeichniss aller bisher bey den Furbildungen zur Sammlung europaischer Schmettlerlinge angegebenen Gattungsbenennungen*. Augsburg, VI+81+(1) pp.
- Kawabe, A. and K. Ijima. 1985. Two Species of the Tortricidae unrecorded from Japan, *Japan Heterocerists' J.* 130: 69~71.
- Kuznetsov, V.I. 1962. New species of leafrollers (Lepidoptera, Tortricidae) from the Far East. *Trudy Zool. Inst. Leningr.* 30: 337~352.
- Kuznetsov, V.I. 1964. New genera and species of leaf-rollers (Lepidoptera: Tortricidae) from the Far East. *Ent. Obozr.* 43: 873~889.
- Kuznetsov, V.I. 1978. Tortricidae (Olethreutidae, Cochyliidae). [In] Medvedev, G.S. (Ed.), *Keys to the Insecta Fauna of the European Part of USSR*. IV (1). *Opredeliteli po Faune SSSR*, (117): 193~686. (in Russian). [Translated for United States Department of Agriculture and National Science Foundation (1987), Amerind Publication co. New Delhi, 991 pp].
- Linnaeus, C. 1758. *Systema Naturae per regna tria naturae, secundum classes, ordines, genera, species, cum characteribus, differentiis, synonymis, locis*. Editio Decima, Reformata. 1. 824 S. Holmiae.
- Liu, Y.Q. 1983. Cochyliidae and Tortricidae. pp 28~56, pls 6~8. *In Iconographia Heterocerorum Sinicorum*, eds. Liu *et al.*, 439pp. Chinese Academy of Sciences, Beijing.
- Liu, Y.Q., J.W. Bai and S.M. Chang. 1974. A Study on the tortricid moths in Tai-ling forest area of Heilungkiang province. *Acta Entomol. Sinica*. 17(2): 166~174.
- Liu, Y.Q. and J.W. Bai. 1977. *Lepidoptera, Tortricidae*, part 1. [Economic Insect Fauna of China] 11: 1~93, 24 pls.
- Liu, Y.Q. and J.W. Bai. 1987. On the Chinese *Croesia* H. (Lepidoptera, Tortricidae), with descriptions of five new species. *Acta Entomol. Sinica* 30(3): 313~320..
- Liu, Y.Q. and J.W. Bai. 1988. A Study on the Chinese *Paratorma* Meyrick (Lepidoptera, Tortricidae). *Sinozoologia* 6: 219~223.
- Liu, Y.Q. and J.W. Bai. 1993. A Study on the Chinese *Acleris* (Lepidoptera, Tortricidae), with description of a new species. *Sinozoologia* 10: 297~318.
- Liu, Y.Q. and Li G.W. 2002. *Fauna Sinica, Insecta* 27, Lepidoptera, Tortricidae. Editorial committee of Fauna Sinica, Chinese Academy Sciences, pp. 463, plates. 1~136, colour plates 1~2.
- Meyrick, E. 1912-1936. *Exotic Microlepidoptera*. 1912, Vol. 1: 1~64; 1924, Vol. 2: 481~608; Vol. 3: 65~128; 1925, Vol. 4: 129 bis 224; 1930~1936, Vol. 5: 1~642. London.
- Obraztsov, N.S. 1956. Die Gattungen der Palaerktischen Tortricidae. I. Allgemeine aufteilung der Familie und die Unterfamilien Tortricinae und Sparganothinae, 2. Fortsetzung. *Tijdschr. Ent.* 99: 107~154.
- Oku, T. 1956. Notes on Seven Species of the Genus *Acleris* Hubner from Japan with Descriptions of Two New Species (Lepidoptera: Tortricidae). *Insecta Matsumurana* 20(3/4): 114~118.
- Oku, T. 1957. Description of a New Species of *Acleris* Hubner with Notes on Synonymy. *Insecta Matsumurana* 21: 74~76.
- Park, K.T. 1983a. Tortricidae and Cochyliidae. pp. 592~603, pls.

- 38~42. *In* Illustration Flora & Fauna of Korea 27 (Insecta IX). eds. Y.S. Shin *et al.* Ministry of Education, Seoul.
- Park, K.T. 1983b. Microlepidoptera of Korea. *Ins. Koreana* 3: 8~24.
- Petersen, W. 1924. Lepidopteren-Fauna von Estland. Teil II: 318~590.
- Peyerimhoff, H. 1878. Diagnoses de Microlepidopteres nouveaux ou peu connues. *Pet. Nouv. ent.* 2: 101~102. Paris.
- Pierce, F.N. and J.W. Metcalfe. 1922. The genitalia of the Group Tortricidae of the Lepidoptera of the British Islands. xxii + 101 pp, 34 pls. Oundle, Northants.
- Razowski, J. 1966. World fauna of the Tortricini (Lepidoptera, Tortricidae), 576pp, Krakow.
- Razowski, J. 1984. Tortricini. pp XIV + 376, 101 pls. *In* Microlepidoptera Palaearctica, 5. eds. H.G. Amsel *et al.*
- Razowski, J. and T. Yasuda, 1964. Descriptions of new Japanese Acleris-species (Lepidoptera, Tortricidae). *Tyô to Ga* 14: 80~89.
- Schiffmüller, J. and Denis M. 1776. Systematisches Verzeichniss der Schmetterlinge der Wiener Gegend. Wien, 322pp., 3 pls.
- Snellen, P.C.T. 1883. Nieuwe of weing bekende Microlepidoptera van Noord-Azie. *Tijdschr. Ent.* 26: 181~228, Taf. 11~13. Amsterdam.
- Stephens, JF. 1852. List of the Specimens of British Animals in the collection of the British Museum. London, 10, 13 + 120pp.
- Walsingham, L. 1900. Asiatic Tortricidae. *Ann. Mag. nat. Hist.* (7) 5: 368~469, 451~469, 481~490; (7) 6: 121~137, 234~243, 401~409, 429~448.
- Yasuda, T. 1965. The Japanese species of the tortricid genus Acleris (Lepidoptera). *Bull. Univ. Osaka Prefect. (B)* 17: 11~49.

(Received for publication 24 May 2004; accepted 12 June 2004)