

RECORDS OF LEPIDOPTERA TORTRICIDAE FROM KRK ISLAND (CROATIA)

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Remarks on 91 species of Lepidoptera Tortricidae collected on the island of Krk (Croatia) are reported. *Phalonidia curvistrigana* (Stainton, 1859), *Cochylis sannitica* Trematerra, 1995, *Cochylis atricapitana* (Stephens, 1852), *Cnephasia bizensis* Réal, 1953, *Philedone gerningana* (Denis & Schiffermüller, 1775), *Bactra baetrana* (Kennel, 1901), *Endothenia gentianaeana* (Hübner, 1799), *Endothenia oblongana* (Haworth, 1811), *Lobesia littoralis* (Humphreys & Westwood, 1845), *Rhopobota naevana* (Hübner, 1817), *Pelochrista hepatariana* (Herrich-Schäffer, 1851), *Eucosma pupillana* (Clerck, 1759), *Epiblema simplonianum* (Duponchel, 1835), *Cydia medicaginis* (Kuznetsov, 1962), *Cydia coniferana* (Saxesen, 1840) and *Dichrorampha heegerana* (Duponchel, 1843) are new records for the Croatian fauna.

Lepidoptera Tortricidae, new records, island Krk, Croatia.

TREMATERRA, P. & BALDIZZONE, G., Nalazi Lepidoptera Tortricidae na otoku Krku (Hrvatska). -¹Department of Animal, Plant and Environmental Science, University of Molise, Via De Sanctis, 86100 Campobasso (Italy), E-mail: trema@unimol.it, ²Via Manzoni, 24, 14100 Asti (Italy), E-mail: giorgiobaldizzone@tin.it - Entomol. Croat. 2004. Vol. 8. Num. 1 2: 25-44.

U radu su navedeni nalazi 91 vrste Lepidoptera Tortricidae sakupljenih na otoku Krku (Hrvatska). *Phalonidia curvistrigana* (Stainton, 1859), *Cochylis sannitica* Trematerra, 1995, *Cochylis atricapitana* (Stephens, 1852), *Cnephasia bizensis* Réal, 1953, *Philedone gerningana* (Denis & Schiffermüller, 1775), *Bactra baetrana* (Kennel, 1901), *Endothenia gentianaeana* (Hübner, 1799), *Endothenia oblongana* (Haworth, 1811), *Lobesia littoralis* (Humphreys & Westwood, 1845), *Rhopobota naevana* (Hübner, 1817), *Pelochrista hepatariana* (Herrich-Schäffer, 1851), *Eucosma pupillana* (Clerck, 1759), *Epiblema simplonianum* (Duponchel, 1835), *Cydia medicaginis* (Kuznetsov, 1962), *Cydia coniferana* (Saxesen, 1840), *Dichrorampha heegerana* (Duponchel, 1843) su novo zabilježene vrste u fauni Hrvatske.

Lepidoptera Tortricidae, novo zabilježene vrste, otok Krk, Hrvatska

TREMATERRA P. & BALDIZZONE G., Segnalazione di Lepidoptera Tortricidae dell'isola di Krk (Croazia). - ¹Department of Animal, Plant and Environmental Science, University of Molise, Via De Sanctis, 86100 Campobasso (Italy), E-mail: trema@unimol.it, ²Via Manzoni, 24, 14100 Asti (Italy), E-mail: giorgiobaldizzone@tin.it - Entomol. Croat. 2004. Vol. 8. Num. 1 - 2: 25-44.

Si riportano 91 specie di Lepidotteri Tortricidi raccolti sull'isola di Krk (Croazia), tra queste *Phalonidia curvistrigana* (Stainton, 1859), *Cochylis sannitica* Trematerra, 1995, *Cochylis atricapitana* (Stephens, 1852), *Cnephasia bizensis* Réal, 1953, *Philedone gerningana* (Denis & Schiffermüller, 1775), *Bactra bactrana* (Kennel, 1901), *Endothenia gentianaeana* (Hübner, 1799), *Endothenia oblongana* (Haworth, 1811), *Lobesia littoralis* (Humphreys & Westwood, 1845), *Rhopobota naevana* (Hübner, 1817), *Pelochrista hepaticaria* (Herrich-Schäffer, 1851), *Eucosma pupillana* (Clerck, 1759), *Epiblema simplonianum* (Duponchel, 1835), *Cydia medicaginis* (Kuznetsov, 1962), *Cydia coniferana* (Saxesen, 1840) e *Dichrorampha heegerana* (Duponchel, 1843) risultano essere nuove per la fauna croata.

Lepidoptera Tortricidae, nuove segnalazioni, isola Krk, Croazia.

Introduction

The aim of this paper is to provide some data for 91 species of Lepidoptera Tortricidae collected on the island of Krk (Croatia), from 1969 till 2003, by the Italian lepidopterologist Giorgio BALDIZZONE who holds collection in Asti, Italy.

According to the European distributional checklist compiled by RAZOWSKI (1996) and the subsequent paper of HABELER (1998), on new and notable lepidoptera from the island of Krk (in which 27 tortricids are reported), various taxa listed in the present paper are interesting and 16 species are new for the fauna of Croatia: *Phalonidia curvistrigana* (Stainton, 1859), *Cochylis sannitica* Trematerra, 1995, *Cochylis atricapitana* (Stephens, 1852) (Cochylini), *Cnephasia bizensis* Réal, 1953 (Cnephasiini), *Philedone gerningana* (Denis & Schiffermüller, 1775) (Archipini), *Bactra bactrana* (Kennel, 1901) (Bactrini), *Endothenia gentianaeana* (Hübner, 1799), *Endothenia oblongana* (Haworth, 1811) (Olethreutini), *Lobesia littoralis* (Humphreys & Westwood, 1845), *Rhopobota naevana* (Hübner, 1817), *Pelochrista hepaticaria* (Herrich-Schäffer, 1851), *Eucosma pupillana* (Clerck, 1759), *Epiblema simplonianum* (Duponchel, 1835) (Eucosmini), *Cydia medicaginis* (Kuznetsov, 1962), *Cydia coniferana* (Saxesen, 1840) and *Dichrorampha heegerana* (Duponchel, 1843) (Grapholitini).

For each species, distribution and biological notes are given according to RAZOWSKI (2002 and 2003) and TREMATERRA (2003a), and in a few cases comments and

references for their identification are also reported. The records are listed in geographical order: North-South, East-West.

LIST OF TAXA TORTRICINAE TORTRICINI

Acleris forsskaleana (Linnaeus, 1758)

MATERIAL EXAMINED. Road Krk-Vrbnik (Misučajnica) 30.VII.1976, 7.VII.1978. - DISTRIBUTION. Europe, Caucasus, Transcaucasia, Turkmenistan, North America. - BIOLOGY. Larva on *Acer campestre* and *A. pseudoplatanus*; adults fly from June till August.

COCHYLINI

Cochylimorpha jucundana (Treitschke, 1835)

MATERIAL EXAMINED. Road Krk-Vrbnik (Misučajnica) 6.VIII.1976. - DISTRIBUTION. European species. - BIOLOGY. Larva on *Artemisia* spp.; adults observed in June-July.

Phalonidia curvistrigana (Stainton, 1859)

MATERIAL EXAMINED. Soline, 11.VIII.1976. - DISTRIBUTION. Europe, Kazakhstan, South-West Siberia, China, Russian Far East, Korea, Japan. - BIOLOGY. Larva on *Glycine*, *Lactuca*, *Mycelis*, *Prenanthes*, *Senecio*, *Solidago*; adults fly from May till August. - COMMENTS. New species for the Croatian fauna. Biological notes and morphological characters of adults and genitalia are reported by RAZOWSKI (2002).

Phalonidia manniana (Fischer von Röslerstamm, 1839)

MATERIAL EXAMINED. Soline, 10.VIII.1978; Draga Baščanska, 14. - 15.VIII.1975. - 14. - 23.VII.1977, 1.VII.1978, 9. - 13. - 28.VIII.1978, 7.VIII.1980. - DISTRIBUTION. Widely distributed in Palearctic Region. - BIOLOGY. Larva on *Alisma plantago-aquatica*, *Butomus*, *Inula*, *Lycopus europaeus*, *Mentha aquatica*, *M. longifolia*, *M. piperita*; moths fly from May till August.

Phalonidia affinitana affinitana (Douglas, 1846)

MATERIAL EXAMINED. Soline, 11. - 12. - 15.VIII.1976, 15. - 17. - 24. - 25.VII.1977, 31.VII.1978, 5. - 18.VIII.1982, 30.IV.2000. - DISTRIBUTION. Known from West Europe to Caucasus and Ural mountains. - BIOLOGY. Larva develops in flowers and stems of *Aster*

tripolium and on *Inula*; adults fly from May till August-September. - COMMENTS. Two subspecies *P. affinitana affinitana* and *P. affinitana tauriana* (Kennel, 1899) both occurring in Europe. The differences between them are in the form of the forewing and coloration (RAZOWSKI, 2002).

***Phalonidia contractana* (Zeller, 1847)**

MATERIAL EXAMINED. Road Krk-Vrbnik (Misučajnica) 30.VII.1975; Krk (town) 23.VII.1974, 27.VII.1975. - DISTRIBUTION. Widely distributed from Iberian Peninsula to Urals and Greece, North Africa, Asia Minor, Israel, Afghanistan and Kashmir. - BIOLOGY. Larvae in stems, flowers and seeds of *Anthemis*, *Artemisia*, *Cichorium*, *Dittrichia viscosa*, *D. graveolens*, *Lactuca*; adults observed from May till October.

***Gynnidomorpha rubricana* (Peyerimhoff, 1877)**

MATERIAL EXAMINED. Draga Baščanska, 8.VII.1978. - DISTRIBUTION. Europe (former USSR, Slovakia, France, Spain, Italy, former Yugoslavia), China, Russian Far East, Korea, Japan. - BIOLOGY. Larva reported on *Blackstonia* spp.; moths fly from May till July.

***Gynnidomorpha luridana* (Gregson, 1870)**

MATERIAL EXAMINED. Soline, 11.VIII.1976, 25.VII.1977; Road Krk-Vrbnik (Misučajnica) 13.VIII.1974; Krk (town) 5. - 10.VIII.1975; Draga Baščanska, 14.VIII.1974, 19.VIII.1981. - DISTRIBUTION. From British Isles and France to Scandinavia and South Finland, Corsica, Russian Far East. - BIOLOGY. Food plant *Matricaria recutita*; adults from May till August. - COMMENTS. Reported as new for the Croatian fauna, from the island of Krk, by HABELER (1998).

***Agapeta zoegana* (Linnaeus, 1767)**

MATERIAL EXAMINED. Road Krk-Vrbnik (Misučajnica) 18. - 20.VIII.1973, 12. - 16.VIII.1974; Draga Baščanska, 14. - 21.VIII.1974. - DISTRIBUTION. Europe, Asia Minor, Transcaucasia, Urals, Kazakhstan. - BIOLOGY. Larva on *Centaurea*, *Jurinea*, *Knautia*, *Scabiosa* and *Serratula*; moths observed from May till August, in two generations.

***Eugnosta lathoniana* (Hübner, 1800)**

MATERIAL EXAMINED. Road Krk-Vrbnik (Misučajnica) 11.VIII.1988. - DISTRIBUTION. South Europe from Iberian Peninsula to Peloponnes, from Germany to Ural mountains and Caucasus, also Algeria and Armenia. - BIOLOGY. Food plant unknown; adults fly in May-June.

***Aethes hartmanniana* (Clerck, 1759)**

MATERIAL EXAMINED. Road Krk-Vrbnik (Misučajnica) 8.VII.1978, 28.VIII.1978. - DISTRIBUTION. Europe, Asia Minor, Transcaucasia, Armenia, South Siberia. - BIOLOGY. Larva on *Knautia arvensis*, *Scabiosa columbaria*, *S. ochroleuca*, *Succisa* spp.; moths fly from April till August.

***Aethes margarotana* (Duponchel, 1836)**

MATERIAL EXAMINED. Vrbnik, 20.VII.1988, 11.VIII.1988; road Krk-Vrbnik (Misučajnica) 30.VII.1976; Vrh, 1.VIII.1975. - DISTRIBUTION. Europe, North-west Africa, Asia Minor, Middle East, Transcaucasia, Armenia, Kazakhstan, Southern Siberia, China, Russian Far East. - BIOLOGY. Larva on *Eryngium maritimum*; adults fly from April till August.

***Aethes williana* (Brahm, 1791)**

MATERIAL EXAMINED. Čičići, 24. - 25.IV.2003. - DISTRIBUTION. Europe, Asia Minor, Transcaucasia, Kazakhstan, Central Asia, West Siberia, Mongolia. - BIOLOGY. As food plants are reported *Daucus carota*, *Eryngium*, *Ferula communis*, *Gnaphalium*, *Helichrysum*; moths fly from April till September, in two-three generations.

***Aethes francillana* (Fabricius, 1794)**

MATERIAL EXAMINED. Soline, 14.VIII.1976; road Krk-Vrbnik (Misučajnica) 30.VII.1976; Draga Baščanska, 14. - 16. - 21. - VIII.1974, 14. - 15.VIII.1975, 13.VIII.1978, 15.VII.1981, 16.VIII.1982. - DISTRIBUTION. Europe and from Canary Islands to West Siberia. - BIOLOGY. As food plants are reported *Angelica*, *Astydamia*, *Crithmum*, *Daucus*, *Elaeoselinum*, *Eryngium*, *Ferula*, *Pastinaca* and *Peucedanum*; adults observed from April till September, in two or three generations.

***Aethes bilbaensis* (Rössler, 1877)**

MATERIAL EXAMINED. Soline, 3.VIII.1977; Skrbčići, 4.VIII.1977; Paprata, 16.VIII.1978; Kampilje, 26.VII.2003; road Krk-Vrbnik (Misučajnica) 6. - 13. - 17. - 19. - 21.VIII.1974, 5.VIII.1978; Draga Baščanska, 21.VIII.1974, 15.VIII.1975. - DISTRIBUTION. Europe and from North Africa to Central Asia. - BIOLOGY. Larva on *Carum verticillatum*, *Crithmum maritimum*, *Daucus carota*; adults fly from April till September, in two generations.

***Cochylidia rupicola* (Curtis, 1834)**

MATERIAL EXAMINED. Soline, 15.VIII.1976, 10.VIII.1977, 18.VIII.1978; Paprata, 16.VIII.1978; road Krk-Vrbnik (Misučajnica) 20.VIII.1973; Draga Baščanska, 21.VIII.1974, 14. - 15.VIII.1975, 14.VIII.1977. - DISTRIBUTION. Europe, Asia Minor, Middle East, Transcau-

casia. - BIOLOGY. As food plants are reported *Agrimonia*, *Aster linosyris*, *Eupatorium cannabinum*, *Lycopus europaeus*; moths fly from May till July.

***Cochylidia implicitana* (Wocke, 1856)**

MATERIAL EXAMINED. Soline, 25.VII.1977. - DISTRIBUTION. Europe, North Africa, Kazakhstan, Kirghizistan, Central Asia, South-west Siberia. - BIOLOGY. *Achillea*, *Alchemilla*, *Angelica*, *Anthemis*, *Artemisia*, *Aster*, *Chrysanthemum*, *Chrysocoma*, *Compositae*, *Gnaphalim*, *Helichrysum*, *Matricaria*, *Solidago*, *Tanacetum*; adults fly from April till September.

***Diceratura ostrinana* (Guenée, 1845)**

MATERIAL EXAMINED. Soline, 9.VIII.1977; Paprata, 16.VIII.1978; road Krk-Vrbnik (Misučajnica) 20.VIII.1973, 11.-17.,-19.VIII.1974, 30.VII.1975, 10.VIII.1975, 23.VII.1988; Vrh, 1.VIII.1975. - DISTRIBUTION. Europe, Lebanon, Transcaucasia, Dagestan, Southern Siberia. - BIOLOGY. Food plants *Chondrilla juncea*, *Dipsacus fullonum*; adults trapped from April till August.

***Cochylis sannitica* Trematerra, 1995**

MATERIAL EXAMINED. Skrbčići 3.VII.1978; Kampelje, 28.VII.2003; Krk (town) 10.VIII.1975; Draga Baščanska, 15.VIII.1975, 25. - 27.VII.1976, 3. - 15.VIII.1976, 7.VIII.1980. - DISTRIBUTION. Central Italy. - BIOLOGY. Food plant unknown; adults trapped from June till September. - COMMENTS. New species for the Croatian fauna. Biological notes and morphological characters of adults and genitalia are reported by TREMATERRA (1995).

***Cochylis molliculana* Zeller, 1847**

MATERIAL EXAMINED. Soline, 25.VII.1977. - DISTRIBUTION. Europe (Great Britain, France, Spain, Corsica, Malta, Italy, former Yugoslavia, Greece). - BIOLOGY. As food plant are reported *Picris* spp.; adults collected from May till August.

***Cochylis atricapitana* (Stephens, 1852)**

MATERIAL EXAMINED. Soline, 10.VIII.1978; Paprata, 16.VIII.1978. - DISTRIBUTION. Europe, North-west Africa, Urals, South-west Siberia. - BIOLOGY. As food plants are reported *Hieracium*, *Hypericum*, *Phyteuma*, *Senecio jacobaea*; moths observed from May till August, in two generations. - COMMENTS. New species for the Croatian fauna. Biological notes and morphological characters of adults and genitalia are reported by RAZOWSKI (2002).

***Cochylis pallidana* Zeller, 1847**

MATERIAL EXAMINED. Kampelje, 28.VIII.2002. - DISTRIBUTION. Europe, North Africa, Asia Minor, Middle East, Turkmenistan, South Siberia. - BIOLOGY. Food plant *Jasione montana*; moths fly from May till July.

***Cochylis posterana* (Zeller, 1847)**

MATERIAL EXAMINED. Vrh, 9.VIII.1975. - DISTRIBUTION. Europe, Morocco, Asia Minor, Transcaucasia, Iran, Kazakhstan, Central Asia, West Siberia. - BIOLOGY. Larva lives in flowers and seeds of *Arctium lappa*, *A. tomentosum*, *Carduus acanthoides*, *C. nutans*, *C. jacea*, *Cirsium vulgare*, *Jurinea cyanooides*; moths fly from May till September, in two generation.

***Falseuncaria degreyana* (McLachlan, 1869)**

MATERIAL EXAMINED. Soline, 15.VIII.1976, 3.VIII.1977; road Krk-Vrbnik (Misučajnica) 3. - 28.VII.1978; Draga Baščanska, 15.VIII.1975, 3.VIII.1976, 14.VIII.1977, 13.VIII.1978. - DISTRIBUTION. Europe, Kazakhstan, Central Asia, Central Siberia, Mongolia. - BIOLOGY. Larva on *Antirrhinum*, *Linaria*, *Plantago*; adults observed from May till August, in two generations.

CNEPHASIINI

***Propiromorpha rhodophana* (Herrich-Schäffer, 1851)**

MATERIAL EXAMINED. Road Čižići-Omišalj, 6.V.2002; 24. - 25.IV.2003; Skrbčići, 4.VIII.1977; Kampelje, 17.VIII.2001; road Krk-Vrbnik (Misučajnica) 30.VII.1975; 2., 6.VIII.1975; 30.VII.1976; 16.VIII.1982; Vrh, 9.VIII.1975; Draga Baščanska, 23.VIII.1979. - DISTRIBUTION. South Europe, Asia Minor, Mongolia, China, Russian Far East: Amur Territory and Primorsky Krai. - BIOLOGY. Larva on *Clematis integrifolia*; adults observed in April-June and August.

***Xerocnephasia rigana* (Sodoffsky, 1829)**

MATERIAL EXAMINED. Road Čižići-Omišalj, 24.-25.IV.2003; road Krk-Vrbnik (Misučajnica) 29.VII.1977, 11.VIII.1977, 28.IV.2000. - DISTRIBUTION. Europe, Siberia to Yakutia, Russian Far East: Amur territory and Primorsky Krai, Mongolia, North China and Korea. - BIOLOGY. Food plants *Anemone*, *Clematis recta* and *Pulsatilla vulgaris*; adults fly from April-June till July-August.

***Cnephasia communana* (Herrich-Schäffer, 1851)**

MATERIAL EXAMINED. Road Krk-Vrbnik (Misučajnica) 29.IV.2001; Malmašuta, 29.IV.2000. - DISTRIBUTION. Europe, Morocco, Libya, Asia Minor, Caucasus, Transcaucasus, Kazakhstan, Turkmenistan, South Siberia. - BIOLOGY. Larva polyphagous, feeds on *Chrysanthemum*, *Lotus*, *Plantago*, *Rumex* and many other plants; moths fly from May till July.

***Cnephasia cupressivorana* (Staudinger, 1871)**

MATERIAL EXAMINED. Road Krk-Vrbnik (Misučajnica) 28.VI.2000; Malmašuta, 29.IV.2000; Picik, 6.V.2002. - DISTRIBUTION. Southern Europe from Iberian Peninsula to Balkan Peninsula, North Romania, ? Austria and Asia Minor. - BIOLOGY. Food plants *Cupressus*, *Prunus armeniaca*, *Scrophularia*; moths fly from March till June.

***Cnephasia abrasana* (Duponchel, 1843)**

MATERIAL EXAMINED. Picik, 6.V.2002. - DISTRIBUTION. Southern and median belts of Europe, Asia Minor. - BIOLOGY. Larva on *Achillea millefolium*; moths observed from May till August.

***Cnephasia longana* (Haworth, 1811)**

MATERIAL EXAMINED. Road Krk-Vrbnik (Misučajnica) 3.VII.1978. - DISTRIBUTION. Europe, Canary Islands, North-West Africa, Asia Minor and North America. - BIOLOGY. Larva polyphagous; adults fly from May till August, depending on the geographic latitude. - COMMENTS. Reported as new for the Croatian fauna, from the island of Krk, by HABELER (1998).

***Cnephasia bizensis* Réal, 1953**

MATERIAL EXAMINED. Road Krk-Vrbnik (Misučajnica) 2.VII.1978. - DISTRIBUTION. France, ? Spain, Italy (Sicily). - BIOLOGY. Moths fly at the end of April and in June in a field with a *Limonium* dominated plant-community (TREMATERRA, 2003b). - COMMENTS. New species for the Croatian fauna. Biological notes and morphological characters of adults and genitalia are reported by TREMATERRA (2003b). It is interesting to note that the locality where this species was collected in Krk island is a strongly xerothermic field, without *Limonium*.

***Cnephasia ecullyana* Réal, 1951**

MATERIAL EXAMINED. Road Krk-Vrbnik (Misučajnica) 3.VII.1978. - DISTRIBUTION. Europe: Czech Republic, Slovakia, Germany, France, Spain, Portugal, Italy, Switzerland, Austria, Hungary, former Yugoslavia and Greece. - BIOLOGY. Larva probably on *Rosaceae*; moths fly from May-June till August. - COMMENTS. The status of this species is reconsidered by RAZOWSKI (2002).

ARCHIPINI

***Pseudargyrotoza conwagana* (Fabricius, 1775)**

MATERIAL EXAMINED. Road Krk-Vrbnik (Misučajnica) 14.VIII.1973. - DISTRIBUTION. Widely distributed in Europe and whole Palaearctic. - BIOLOGY. Larva feeds on *Berberis*, *Fraxinus*, *Ligustrum* and *Syringa*; moths fly from May till September.

***Philedone gerningana* (Denis & Schiffermüller, 1775)**

MATERIAL EXAMINED. Road Krk-Vrbnik (Misučajnica) 13.VIII.1974. - DISTRIBUTION. Palaearctic Region except North Africa and some parts of Central Asia and Japan. - BIOLOGY. Larva polyphagous on leaves of *Lotus*, *Plantago*, *Scabiosa*, *Peucedanum*, *Potentilla*, *Vaccinium*, and trees such as *Abies*, *Populus tremula* etc.; adults observed from June till September. - COMMENTS. New species for the Croatian fauna. Biological notes and morphological characters of adults and genitalia are reported by RAZOWSKI (2002).

***Archips podanus* (Scopoli, 1763)**

MATERIAL EXAMINED. Vrbnik, 12.VIII.1969; road Krk-Vrbnik (Misučajnica) 2.VIII.1975; Krk (town) 10.VIII.1975. - DISTRIBUTION. Known from Europe, the data from Asia Minor not checked, those from Far East are incorrect (RAZOWSKI, 2002). - BIOLOGY. Polyphagous, food plants are *Corylus*, *Fagus*, *Malus*, *Pyrus*, *Rosa*, *Ribes*, *Trifolium*, *Vaccinium* and even *Picea*; moth flies from April till October.

***Archips xylosteanus* (Linnaeus, 1758)**

MATERIAL EXAMINED. Krk (town) 8.,-22.VIII.1998; Draga Bašćanska, 28.VII.1999. - DISTRIBUTION. Palaearctic Region from West Europe to Asia Minor, Central Asia and Japan. - BIOLOGY. Larva polyphagous, as food plants are cited *Acer*, *Crataegus*, *Betula*, *Lonicera*, *Malus*, *Pyrus*, etc.; adults fly from May till August.

***Argyrotaenia ljugiana* (Thunberg, 1797)**

MATERIAL EXAMINED. Soline, 28.VII.1976; 12.VIII.1976 - DISTRIBUTION. Palaearctic species, distributed from Iberian Peninsula and North-west Africa as far as China and Russian Far East, North America. - BIOLOGY. Polyphagous, larvae on *Abies*, *Betula*, *Calluna*, *Erica*, *Larix*, *Malus*, *Myrica*, *Picea*, *Prunus*, *Vaccinium*, etc.; adults fly in April-May and June-September, in two generations. - COMMENTS. Reported as new for the Croatian fauna, from the island of Krk, by HABELER (1998).

***Cacoecimorpha pronubana* (Hübner, 1796-99)**

MATERIAL EXAMINED. Čižići, 10.VIII.1978; road Krk-Vrbnik (Misučajnica) 20.VIII.1973, 11.VIII.1977, 3.VII.1978. - DISTRIBUTION. Known for Europe, Morocco, Algeria, Tunisia, Asia Minor, Near East, Japan, South Africa and North America. - BIOLOGY. Polyphagous; adults found from March till November, according to the geographic latitude. - COMMENTS. Reported as new for the Croatian fauna, from the island of Krk, by HABELER (1998) although MACELJSKI (1969) mentioned it as found in glasshouses in the coastal area.

***Clepsis pallidana* (Fabricius, 1776)**

MATERIAL EXAMINED. Soline, 18.VIII.1976; Road Krk-Vrbnik (Misučajnica) 20.VIII.1973, 13.VIII.1974; Draga Baščanska, 14.VIII.1974. - DISTRIBUTION. Palaearctic species known from West Europe to Japan. - BIOLOGY. Larva in spun leaves and on young shoots of *Artemisia campestris*, *Aster*, *Euphorbia*, *Filipendula ulmaria*, *Gnaphalium*, *Iris*, *Jurinea*, *Lactuca serriola*, *Sedum*, *Solidago*, *Urtica* and many others e.g. *Malus*. Two generations yearly, moth in May-July and September. - COMMENTS. Reported as new for the Croatian fauna, from the island of Krk, by HABELER (1998).

***Clepsis consimilana* (Hübner, 1817)**

MATERIAL EXAMINED. Krk (town) 10.VIII.1975, 8.VIII.1976. - DISTRIBUTION. Europe, Morocco, Asia Minor, Lebanon; introduced in North America and Madagascar. - BIOLOGY. Food plants *Carpinus betulus*, *Cotoneaster horizontalis*, *Crataegus*, *Hedera helix*, *Ligustrum vulgare*, *Lonicera periclymenum*, *Malus sylvestris*, *Polygonum*, *Syringa*, *Ulmus*; adults fly from April till October.

SPARGANOTHINI

***Sparganothis pilleriana* (Denis & Schiffermüller, 1775)**

MATERIAL EXAMINED. Vrbnik, 12.VIII.1969; road Krk-Vrbnik (Misučajnica) 7.VIII.1978. - DISTRIBUTION. Transpalaearctic species, known from West Europe, Asia Minor, Iran, Iraq to Mongolia, China and Japan; introduced to North America. - BIOLOGY. Polyphagous; moths observed from June till August.

OLETHREUTINAE
BACTRINI

***Bactra bactrana* (Kennel, 1901)**

MATERIAL EXAMINED. Soline, 11. - 12.VIII.1976, 4.VIII.2000. - DISTRIBUTION. Known for South Europe, Canary Islands, North Africa, Asia Minor, Caucasus, Asia, Madagascar and India. - BIOLOGY. Food plants *Cynodon dactylon*, *Cyperus rotundus* and *Poaceae*; adults appear from May till September. - COMMENTS. New species for the Croatian fauna. Biological notes and morphological characters of adults and genitalia are reported by TREMATERRA & CIAMPOLINI (1989) and RAZOWSKI (2003).

***Bactra lacteana* Caradja 1916**

MATERIAL EXAMINED. Soline, 11. - 12. - 14. - 18.VIII.1976; 24.VII.1977 - DISTRIBUTION. Europe, Transcaucasus, Kazakhstan, Southern Siberia, Russian Far East, Mongolia, China, Japan. - BIOLOGY. Larva feeds on *Carex* spp.; moths recorded from June till August. - COMMENTS. Reported as new for the Croatian fauna, from the island of Krk, by HABELER (1998).

OLETHREUTINI

***Endothenia gentianaeanana* (Hübner, 1799)**

MATERIAL EXAMINED. Soline, 12.VIII.1976; road Krk-Vrbnik (Misučajnica) 28.IV.2000; Draga Baščanska, 15.- 16.VIII.1974. - DISTRIBUTION. Europe, Asia Minor, Central Asia, Mongolia, China and Japan. - BIOLOGY. As food plants are reported *Anchusa*, *Dianthus*, *Dipsacus fullonum*, *Euphrasia*, *Gentiana acaulis*, *Gentianella germanica*, *Plantago media*; adults fly from April till August. - COMMENTS. New species for the Croatian fauna. Biological notes and morphological characters of adults and genitalia are reported by KUZNETSOV (1989) and RAZOWSKI (2003).

***Endothenia oblongana* (Haworth, 1811)**

MATERIAL EXAMINED. Soline, 18.VIII.1976. - DISTRIBUTION. Europe. - BIOLOGY. Larva polyphagous; moths observed from April till September. - COMMENTS. New species for the Croatian fauna. Biological notes and morphological characters of adults and genitalia are reported by KUZNETSOV (1989) and RAZOWSKI (2003).

***Endothenia marginana* (Haworth, 1811)**

MATERIAL EXAMINED. Draga Bašćanska, 27. - 31.VII.1976. - DISTRIBUTION. Europe, West Africa, Transcaucasus, Urals, Kazakhstan, Siberia, Russian Far East, Mongolia, China. - BIOLOGY. Food plants *Cirsium*, *Dipsacus*, *Galeopsis*, *Pedicularis*, *Rhinanthus*, *Stachys*; moths recorded from May till September.

***Endothenia nigricostana* (Haworth, 1811)**

MATERIAL EXAMINED. Kappelje, 2.VIII.2002; road Krk-Vrbnik (Misučajnica) 7.VII.1978; Krk (town) 15.VII.2001. - DISTRIBUTION. Europe, Siberia, Russian Far East, Korea, Japan. - BIOLOGY. Larva in stems and roots of *Lamium*, *Stachys palustris*, *S. sylvatica*; moths fly from May till July

***Lobesia botrana* (Denis & Schiffermüller, 1775)**

MATERIAL EXAMINED. Soline, 25.VII.1977; road Krk-Vrbnik (Misučajnica) 29.VII.1977; Vrh, 9.VIII.1975; Krk (town) 10.VIII.1975; Draga Bašćanska, 15.VIII. 1975. - DISTRIBUTION. Europe, North Africa, Asia Minor, Middle East, Caucasus, Transcaucasus, Turkmenistan, Iraq, Iran, Kazakhstan, Central Asia, Japan and North America. - BIOLOGY. Larva polyphagous; moths fly from March till October, in two-three generations.

***Lobesia quaggana* Mann, 1855**

MATERIAL EXAMINED. Road Krk-Vrbnik (Misučajnica) 3.VII.1978. - DISTRIBUTION. Europe (Spain, Portugal, Corsica, Italy, former Yugoslavia, Albania) and Asia Minor. - BIOLOGY. Larva on *Senecio* spp.; adults observed from May till July.

***Lobesia littoralis* (Humphreys & Westwood, 1845)**

MATERIAL EXAMINED. Soline, 31.VII.1978. - DISTRIBUTION. Europe, North Africa, Asia Minor. - BIOLOGY. As food plants are cited *Armeria maritima*, *Limonium*, *Lotus corniculatus*; adults collected from May till October. - COMMENTS. New species for the Croatian fauna. Biological notes and morphological characters of adults and genitalia are reported by BRADLEY et al. (1979) and KUZNETSOV (1989).

***Hedya pruniana* (Hübner, 1799)**

MATERIAL EXAMINED. Picik, 12.V.2003, e.l. *Pyrus pyraeaster*. - DISTRIBUTION. Europe, Asia Minor, Caucasus, Transcaucasus, Iran, Urals, Kazakhstan and Russian Far East. - BIOLOGY. Larva polyphagous; moths observed from April-May till August.

***Metendothenia atropunctana* (Zetterstedt, 1840)**

MATERIAL EXAMINED. Picik, 15.V.2003. - DISTRIBUTION. Widely distributed in Palearctic Region, introduced to North America. - BIOLOGY. As food plants are reported *Alnus*, *Betula*, *Crataegus*, *Fagus*, *Hippophae*, *Myrica*, *Salix*, *Tilia*; moths observed from May till August, in two generations.

***Celypha cespitana* (Hübner, 1817)**

MATERIAL EXAMINED. Soline, 12.VIII.1976. - DISTRIBUTION. From Europe to Russian Far East, Japan and North America. - BIOLOGY. Larva polyphagous; moths fly from April till October.

ENARMONIINI

***Ancylis badiana* (Denis & Schiffermüller, 1775)**

MATERIAL EXAMINED. Picik, 19.VIII.2001. - DISTRIBUTION. Widely distributed in Palearctic Region. - BIOLOGY. Larva on *Lathyrus*, *Lythrum*, *Trifolium*, *Vicia*; moths observed from April till August, in two generations.

EUCOSMINI

***Thiodia trochilana* (Frölich, 1828)**

MATERIAL EXAMINED. Vrbnik, 13.VIII.1969; road Krk-Vrbnik (Misučajnica) 18.VIII.1973, 11.- 9.VIII.1974; Skrbčići, 4.VIII.1977; Krk (town) 22.VIII.1998; Draga Bašćanska, 28.VII.1999. - DISTRIBUTION. Europe, North Africa, Asia Minor, Transcaucasus, Iran and Turkmenistan. - BIOLOGY. Food plants *Dorycnium pentaphyllum*, *Teucrium chamaedrys*, *T. montanum*, *T. polium*; adults fly from May-June till August.

***Rhopobota stagnana* (Denis & Schiffermüller, 1775)**

MATERIAL EXAMINED. Vrh, 1.VIII.1975. - DISTRIBUTION. Europe, Asia Minor, Caucasus, Transcaucasia, Transurals. - BIOLOGY. Larva on *Scabiosa* and *Succisa*; moths reported from March till September, in two generations.

***Rhopobota naevana* (Hübner, 1817)**

MATERIAL EXAMINED. Vrh, 1.VIII.1975. - DISTRIBUTION. Widely distributed in Palearctic Region. - BIOLOGY. Larva polyphagous; moths recorded from June till September. -

COMMENTS. New species for the Croatian fauna. Biological notes and morphological characters of adults and genitalia are reported by RAZOWSKI (2003).

***Epinotia festivana* (Hübner, 1796-99)**

MATERIAL EXAMINED. Vrh, 9.VIII.1975; Draga Baščanska, 15.VIII.1974. - DISTRIBUTION. Europe, North Africa, Asia Minor, Caucasus, Transcaucasia, Dagestan and Iran. - BIOLOGY. Larva on *Corylus* and *Quercus*; adults observed from June till August.

***Pelochrista hepariana* (Herrich-Schäffer, 1851)**

MATERIAL EXAMINED. Soline, 10.VIII.1977. - DISTRIBUTION. Europe (Czech Republic, Slovakia, Germany, France, Malta, Italy, Austria, Hungary, Romania) and Asia Minor. - BIOLOGY. Larva recorded on *Inula conyza*; moths found in May-June and July-August. - COMMENTS. New species for the Croatian fauna. Biological notes and morphological characters of adults and genitalia are reported by TREMATERRA (2000) and RAZOWSKI (2003).

***Pelochrista agrestana* (Treitschke, 1830)**

MATERIAL EXAMINED. Road Krk-Vrbnik (Misučajnica) 13.VIII.1977; Kampelje, 17.VIII.2001; 2.VIII.2002; 28.VII.2003; Vrh, 9.VIII.1975. - DISTRIBUTION. Europe (Lithuania, France, Corsica, Italy, Austria, former Yugoslavia, Bulgaria, Greece, Crete) and Asia Minor. - BIOLOGY. Food plant *Carduus*; moths from May till September.

***Pelochrista caecimaculana* (Hübner, 1799)**

MATERIAL EXAMINED. Soline, 25.VII.1977; Vrbnik, 5.VIII.1970; Draga Baščanska, 16. - 21.VIII.1974; 25.- 27.VII.1976. - DISTRIBUTION. Europe, North Africa, Asia Minor, Caucasus, Kazakhstan, West Siberia and Mongolia. - BIOLOGY. As food plants are recorded *Artemisia*, *Carduus*, *Centaurea jacea*, *C. nigra*, *Epilobium*, *Serratula*; moths from May till August.

***Pelochrista modicana* (Zeller, 1847)**

MATERIAL EXAMINED. Krk (town) 8. - 22.VIII.1998; Draga Baščanska, 31.VII.1976, 28.VII.1999; - DISTRIBUTION. Central-southern Europe, Asia Minor, Transcaucasia, Kazakhstan and Turkmenistan. - BIOLOGY. Food plants *Carduus*, *Centaurea* and other *Asteraceae*; adults found from May till September.

***Eucosma hohenwartiana* (Denis & Schiffermüller, 1775)**

MATERIAL EXAMINED. Vrbnik, 12.VIII.1969; Road Krk-Vrbnik (Misučajnica) 20.VIII.1973, 13. - 17. - 19.VIII.1974; Draga Baščanska, 15. - 16. - 21.VIII.1974. - DISTRIBUTION. Widely distributed in Palaearctic Region. - BIOLOGY. As food plants are reported *Carduus*, *Centaurea*, *Cirsium*, *Serratula*; adults collected from May till September.

***Eucosma conterminana* (Guenée, 1845)**

MATERIAL EXAMINED. Paprata (Vindersko), 16.VIII. 1978; Kampelje, 17.VIII.2001; road Krk-Vrbnik (Misučajnica) 2.VIII.1975, 11.VIII.1977. - DISTRIBUTION. Palaearctic, from Europe to Russia Far East. - BIOLOGY. As food plants are reported *Lactuca* spp.; adults fly from June till September.

***Eucosma albidulana* (Herrich-Schäffer, 1851)**

MATERIAL EXAMINED. Soline, 18.VIII.1976; Kampelje, 17.VIII.2001; road Krk-Vrbnik (Misučajnica) 13. - 17. - 20.VIII.1973, 14. - 17. - 19.VIII.1974; Draga Baščanska, 14. - 16.VIII.1974. - DISTRIBUTION. Europe, North Africa, Asia Minor, Transcaucasia, Iran, Kazakhstan and Central Asia. - BIOLOGY. Food plants *Artemisia*, *Centaurea paniculata*, *Helichrysum*, *Serratula tinctoria*, *Veronica*; moths observed from May till August.

***Eucosma pupillana* (Clerck, 1759)**

MATERIAL EXAMINED. Malmašuta, 16.VII.2001. - DISTRIBUTION. Europe, Asia Minor, Transcaucasia, Iran, Urals, Kazakhstan, Tajikistan and West Siberia. - BIOLOGY. Food plant *Artemisia absinthium*; moths observed from May till August. - COMMENTS. New species for the Croatian fauna. Biological notes and morphological characters of adults and genitalia are reported by KUZNETSOV (1989) and RAZOWSKI (2003).

***Epiblema cirsianum* (Zeller, 1843)**

MATERIAL EXAMINED. Sv. Marko-Risika, 22.IV.2003; road Krk-Vrbnik (Misučajnica) 11.VIII.1977. - DISTRIBUTION. Europe, Kazakhstan and Siberia. - BIOLOGY. Larva on *Carlina*, *Centaurea nigra*, *Cirsium palustre*; adults observed from May till August. - COMMENTS. Reported also as *Epiblema scutulanum* (Denis & Schiffermüller, 1775).

***Epiblema fuchsianum* (Rössler, 1877)**

MATERIAL EXAMINED. Road Čižići-Omišalj, 6.V.2002; Picik, 27.IV.2001; Draga Baščanska, 30.IV.2000. - DISTRIBUTION. Central Europe, Caucasus, Urals, Kazakhstan and Siberia. - BIOLOGY. Larva recorded on *Chamaecytisus*; adults collected from April till July. - COM-

MENTS. Reported as new for the Croatian fauna, from the island of Krk, by HABELER (1998).

Epiblema costipunctanum (Haworth, 1811)

MATERIAL EXAMINED. Soline, 14.VIII.1976, 25.VII.1977; Draga Bašćanska, 25.-27.VII.1976, 3.VIII.1976, 7.VIII.1977, 8.VII.1978. - DISTRIBUTION. Europe. - BIOLOGY. Food plant *Senecio jacobaea*; moths in May-July and July-August. - COMMENTS. Reported as new for the Croatian fauna, from the island of Krk, by HABELER (1998).

Epiblema simplonianum (Duponchel, 1835)

MATERIAL EXAMINED. Krk (town) 27.VII.1977. - DISTRIBUTION. Europe, South Siberia and Mongolia. - BIOLOGY. Food plant reported to be *Calluna*; moths recorded from May till July. - COMMENTS. New species for the Croatian fauna. Biological notes and morphological characters of adults and genitalia are reported by KUZNETSOV (1989) and RAZOWSKI (2003). Maybe in Krk the species feeds on *Erica arborea*, because *Calluna* is not present on the island.

Notocelia cynosbatella (Linnaeus, 1758)

MATERIAL EXAMINED. Road Krk-Vrbnik (Misučajnica) 28.IV.2000; Picik, 6.V.2002. - DISTRIBUTION. Europe, Asia Minor, Near East, Caucasus, Transcaucasus, Iran, Urals, Kazakhstan, Central Asia, Siberia and Mongolia. - BIOLOGY. Food plants *Carpinus betulus*, *Cotoneaster*, *Cydonia*, *Malus sylvestris*, *Myrica gale*, *Prunus*, *Pyrus*, *Quercus*, *Rosa*, *Rubus*; adults fly from April-May till July-August.

Rhyacionia pinicolana (Doubleday, 1849)

MATERIAL EXAMINED. Malmašuta, 16.VII. 2001; Draga Bašćanska, 14.VIII.1975; 13.VIII.1978. - DISTRIBUTION. Europe, Caucasus, Transcaucasus, Transurals, Siberia, Transbaikalia, China, Russian Far East, Korea and Japan. - BIOLOGY. Food plants *Cedrus*, *Pinus halepensis*, *P. mugo*, *P. nigra*, *P. pinea*, *P. strobus*, *P. sylvestris*; moths in July-August.

Rhyacionia piniana (Herrich-Schäffer, 1851)

MATERIAL EXAMINED. Draga Bašćanska, 8.VII.1978. - DISTRIBUTION. Europe. - BIOLOGY. Larva on *Pinus sylvestris*; moths observed from June till August.

GRAPHOLITINI

Cydia semicinctana Kennel, 1901

MATERIAL EXAMINED. Road Krk-Vrbnik (Misučajnica) 29.VII.1977; Picik, 19.VIII.2001. - DISTRIBUTION. Europe (former USSR, France, Italy, Switzerland, former Yugoslavia, ?Bulgaria, Greece), Asia Minor, Iran and Turkestan. - BIOLOGY. Larva on *Acer* spp.; moths in June-July and August.

Cydia microgrammana (Guenée, 1845)

MATERIAL EXAMINED. Road Krk-Vrbnik (Misučajnica) 3.VII.1978. - DISTRIBUTION. West Europe, Morocco, Asia Minor, Caucasus and Iran. - BIOLOGY. Larva on *Ononis repens* and *O. spinosa*; adults collected from May till July.

Cydia medicaginis (Kuznetsov, 1962)

MATERIAL EXAMINED. Draga Bašćanska, 27.VII.1976. - DISTRIBUTION. Europe, Transcaucasus, Kazakhstan, Southern Siberia. - BIOLOGY. Larva on *Medicago* spp.; moths observed from June till August. - COMMENTS. New species for the Croatian fauna. Biological notes and morphological characters of adults and genitalia are reported by KUZNETSOV (1989) and RAZOWSKI (2003).

Cydia duplicana (Zetterstedt, 1839)

MATERIAL EXAMINED. Road Krk-Vrbnik (Misučajnica) 3.VII.1978, 28.IV.2000. - DISTRIBUTION. Europe, Transcaucasus, Kazakhstan and Turkmenistan. - BIOLOGY. As food plants are reported *Abies alba*, *Juniperus*, *Picea abies*, *Pinus*; adults recorded from May till September.

Cydia coniferana (Saxesen, 1840)

MATERIAL EXAMINED. Draga Bašćanska, 7.VIII.1977. - DISTRIBUTION. Europe, Siberia, Mongolia and Russian Far East. - BIOLOGY. Food plants *Abies*, *Picea omorika*, *P. sitchensis*, *Pinus cembra*, *P. nigra*, *P. resinosa*, *P. sylvestris*; moths observed from April till August. - COMMENTS. New species for the Croatian fauna. Biological notes and morphological characters of adults and genitalia are reported by DANILEVSKII & KUZNETSOV (1968) and RAZOWSKI (2003).

Cydia pomonella (Linnaeus, 1758)

MATERIAL EXAMINED. Vrbnik, 12.VIII.1969; road Krk-Vrbnik (Misučajnica) 10.-30.VIII.1975. - DISTRIBUTION. Widely distributed in Palaearctic Region, Northern South

America, South Africa, Australia, New Zealand. - BIOLOGY. Larva on *Castanea*, *Citrus*, *Cydonia*, *Ficus*, *Juglans*, *Malus*, *Prunus*, *Pyrus*, *Quercus*, various *Rosaceae*, *Sorbus*, etc; moths recorded from April till October.

***Cydia splendana* (Hübner, 1796-99)**

MATERIAL EXAMINED. Road Krk-Vrbnik (Misučajnica) 7.VIII.1974, 30.VIII.1975, 29.VII.1977; Skrbčići, 4.VIII.1977; Krk (town) 8. - 22.VIII.1998; Draga Baščanska, 28.VII.1999. - DISTRIBUTION. Known for Europe, Madeira, Morocco, Asia Minor, Transcaucasus, North Iran, and from Urals to Japan. - BIOLOGY. Larva on *Castanea sativa*, *Fagus sylvatica*, *Juglans regia*, *Prunus*, *Quercus petraea*, *Q. robur*, *Q. rubra*; adults observed from April till October. - COMMENTS. Reported by RAZOWSKI (2003) as *Cydia triangulella* (Goeze, 1783).

***Grapholita compositella* (Fabricius, 1775)**

MATERIAL EXAMINED. Draga Baščanska, 16.VIII.1974, 15.VIII. 1975, 14.VIII.1977. - DISTRIBUTION. Europe, Asia Minor, Caucasus, Transcaucasus, Kazakhstan, Siberia, Mongolia, China, Russian Far East and North America. - BIOLOGY. Food plants are *Cannabis sativa*, *Glycine*, *Lotus corniculatus*, *Medicago sativa*, *Melilotus*, *Trifolium pratense*; moths from April till September, in two generations. - COMMENTS. Reported as new for the Croatian fauna, from the island of Krk, by HABELER (1998).

***Grapholita lunulana* (Denis & Schiffermüller, 1775)**

MATERIAL EXAMINED. Road Čižići-Omišalj, 6.V.2002. - DISTRIBUTION. Europe, Morocco, Asia Minor, Transcaucasia, Turkmenistan, Central Asia. - BIOLOGY. As food plants are reported *Lathyrus*, *Phaseolus*, *Pisum*, *Trifolium*, *Vicia*; moths fly from March till July.

***Grapholita jungiella* (Linnaeus, 1761)**

MATERIAL EXAMINED. Skrbčići, 4.VIII.1977. - DISTRIBUTION. Europe, Asia Minor, Transcaucasus, Kazakhstan, Tajikistan, Siberia, Russian Far East. - BIOLOGY. Larva on *Astragalus*, *Lathyrus* and *Vicia*; adults fly from April till August. - COMMENTS. Reported as new for the Croatian fauna, from the island of Krk, by HABELER (1998).

***Grapholita molesta* (Busck, 1916)**

MATERIAL EXAMINED. Krk (town) 8.- 22.VIII.1998; Draga Baščanska, 28.VII.1999. - DISTRIBUTION. Central Europe, Morocco, Transcaucasus, China, Korea, Japan, North America, South America, South West Australia and New Zealand. - BIOLOGY. Larva polyphagous; adults fly from March till September, in two or three generations.

***Pammene splendidulana* (Guenée, 1845)**

MATERIAL EXAMINED. Sv. Marko-Risika, 22.IV.2003; Paprata, 28.IV.2001. - DISTRIBUTION. Europe, Asia Minor and Caucasus. - BIOLOGY. Larva on *Quercus* spp. and *Q. robur*; moths observed from April till July.

***Pammene amygdalana* (Duponchel, 1842)**

MATERIAL EXAMINED. Road Krk-Vrbnik (Misučajnica) 11.VIII.1977. - DISTRIBUTION. Europe, North Africa, Asia Minor and Syria. - BIOLOGY. Food plants *Quercus* and *Sorbus*; moths observed from April till August.

***Pammene fasciana* (Linnaeus, 1761)**

MATERIAL EXAMINED. Čižići, 10.VIII.1978; Road Krk-Vrbnik (Misučajnica) 2.VIII.1975, 13.VIII.1977; Skrbčići, 4.VIII.1977; Picik, 11.VIII; 1977. - DISTRIBUTION. Europe, Asia Minor, Caucasus, Transcaucasus and Iran. - BIOLOGY. Larva reported on *Acer*, *Castanea sativa*, *Fagus sylvatica*, *Quercus suber*; moths observed from May till September.

***Dichrorampha acuminatana* (Lienig & Zeller, 1846)**

MATERIAL EXAMINED. Draga Baščanska, 3.VIII.1976. - DISTRIBUTION. Europe, Morocco, Asia Minor. - BIOLOGY. Larva on *Chrysanthemum segetum*, *Leucanthemum vulgare*, *Tanacetum vulgare*; adults from April till September, in two generations.

***Dichrorampha heegerana* (Duponchel, 1843)**

MATERIAL EXAMINED. Vrbnik, 16.VIII.1977, 17.VIII.1978; Paprata, 16.VIII.1978; road Krk-Vrbnik (Misučajnica) 11. - 13.VIII.1974, 5.VIII.1978, 14.VIII.1979; Vrh, 26.VII.1977. - DISTRIBUTION. Central Europe and North Caucasus. - BIOLOGY. Larva probably on *Asteraceae*; adults fly in July and August. - COMMENTS. New species for the Croatian fauna. Biological notes and morphological characters of adults and genitalia are reported by DANILEVSKII & KUZNETSOV (1968) and RAZOWSKI (2003).

***Dichrorampha petiverella* (Linnaeus, 1758)**

MATERIAL EXAMINED. Soline, 11.VIII.1976; road Krk-Vrbnik (Misučajnica) 7.VII.1978. - DISTRIBUTION. Europe, Asia Minor, Transcaucasus, Iran, Kazakhstan, Siberia, Mongolia, Russian Far East. - BIOLOGY. As food plants are reported *Achillea*, *Leucanthemum*, *Tanacetum*; moths fly from May till September.

***Dichrorampha distinctana* (Herrich-Schäffer, 1851)**

MATERIAL EXAMINED. Draga Bašćanska, 8.VII.1978. - DISTRIBUTION. Europe (?Poland, Czech Republic, Slovakia, Germany, France, Spain, Italy, Switzerland, Austria and Hungary). - BIOLOGY. Food plants, probably *Asteraceae*; adults observed from May till August. - COMMENTS. Reported as new for the Croatian fauna, from the island of Krk, by HABELER (1998).

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DIPTERA PESTS ON ONION VEGETABLES IN CROATIA

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The paper presents the list and descriptions of Diptera pests found on onion vegetables in Croatia in the period from 1999-2001. There is also presented the frequency of single species in the total population of flies registered in this period on onion vegetables in Hrastelnica near Sisak. Four species of Diptera from two families of insects were registered: *Delia antiqua* (Meigen) from the family *Anthomyiidae* and *Liriomyza cepae* (Hering), *Chromatomyia horticola* (Goureau) and *Napomyza gymnostoma* (Loew) from the family *Agromyzidae*. According to the references, the species *Suillia lurida* (Meigen) from the family *Heleomyzidae* is also present in Croatia but was not found on onion in these researches. The species *N. gymnostoma* is a new Diptera pest on onion vegetables in Croatia. Before the appearance of *N. gymnostoma*, *D. antiqua* was considered the most important Diptera pest on onion vegetables.

Diptera, Agromyzidae, Anthomyiidae, frequency of occurrence, onion

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U radu su prikazani i opisani kukci iz reda *Diptera* zabilježeni na lukovičastom povrću u Hrvatskoj u razdoblju od 1999-2001. godine. Također su prikazani i udjeli pojedinih vrsta u ukupnoj populaciji muha zabilježenih na lukovičastom povrću u Hrastelnici nedaleko od Siska. Zabilježene su četiri vrste štetnika iz dvije porodice: *Delia antiqua* (Meigen) iz porodice *Anthomyiidae* i *Liriomyza cepae* (Hering), *Chromatomyia horticola* (Goureau), te *Napomyza gymnostoma* (Loew) iz porodice *Agromyzidae*. Prema literaturi vrsta *Suillia lurida* (Meigen) iz porodice *Heleomyzidae* također je prisutna u Hrvatskoj, no tijekom istraživanja nije nađena na luku. Vrsta *N. gymnostoma* novi je član entomofaune dvokrilaca na lukovičastom povrću u Hrvatskoj. Prije pojave *N. gymnostoma*, smatralo se da je vrsta *D. antiqua* najznačajniji štetnik lukovičastog povrća u Hrvatskoj. Navedeni štetnici mogu umanjiti prinos i kakvoću lukovičastog povrća.

Diptera, Agromyzidae, Anthomyiidae, gustoća populacije, luk